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DEDICATION

THIS BOOK IS AFFECTIONATELY INSCRIBED

TO

PROF. WILLIAM H. DIEFFENBACH, M. D.

IN REMEMBRANCE OF ENDURING FRIENDSHIP AND IN
ADMIRATION OF HIS CHARACTER AS MAN
AND AS PHYSICIAN.

THE TRANSLATOR.

Ich warne im Voraus, dass Indolenz, Gemächlichkeit und Starrsinn vom Dienste am Altare der Wahrheit ausschliesst, und nur Unbefangenheit und unermüdeter Eifer zur heiligsten aller menschlichen Arbeiten fähigt, zur Ausübung der wahren Heilkunde. Der Heilkünstler in diesem Geist aber schliesst sich unmittelbar an die Gottheit, an den Weltenschöpfer an, dessen Menschen er erhalten hilft und dessen Beifall sein Herz dreimal beseligt.

HAHNEMANN.

I warn you in advance that indolence, love of ease, and stubbornness of mind preclude service at the altar of truth, for only the unprejudiced and the tirelessly zealous are fit for this holiest of human activities, the practice of the true art of healing. The physician of this type, however, is immediately allied to Divinity, to the Creator of the universe, whose children he helps to preserve, and whose commendation thrice blesses his heart.

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AUTHOR'S PREFACE.

(To the Fourth French Edition.)

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Since the time when these studies were first published (1884), the subject of disorders and alterations of personality has engaged many writers. (1) A review of this recent work will not be given here, but should be developed in another volume.

When review is made of all cases where the personality, the ego-unity, is affected in any degree, from slight, partial, transitory alterations to complete metamorphoses, they may, I think, be divided into two chief categories; spontaneous (idiopathic) alterations and alterations due to some external cause.

The first, spontaneous or natural, are accessible only to observation, and produce in grave cases a profound and permanent disturbance of vital functions.

The second, artificial, developed by experimentation (commonly hypnotism), have an external provocation, do not always penetrate into the inner life of the individual, and remain somewhat superficial and transitory unless by their repetition a new mental habit is created.

Though the history of our subject is not very ancient—some forty years, at the most—it includes two periods. During the first, the spontaneous or natural alterations alone were studied; during the second (after the renaissance of hypnotism), the artificial or experimental disorders were chiefly con-

sidered. Although recognizing the great interest of the latter, I am inclined to believe (until the contrary is proved) that the spontaneous alterations which form almost exclusively the subject-matter of the text are still the most reliable documents in the study of morbid manifestations of personality.

TH. RIBOT.

Paris, May, 1891.

TRANSLATOR'S PREFACE.

The subject of diseases of the personality, so succinctly formulated by Prof. Ribot, has been selected for translation and annotation as the first of a series by this author:

Diseases of the Personality.

Diseases of Volition.

Diseases of the Memory.

Prof. Ribot is a psychologist and philosopher, not a physician, and quite unacquainted with homœotherapeusis, yet his work is most illuminative of the latter, and may be considered as establishing on a scientific basis the homœopathic treatment of morbidities affecting personality, volition and memory, just as the modern physicist and laboratory worker have established on a scientific basis the clinically-known, dynamic energy of the infinitesimal; have exhibited the marvels of catalysis; have worked out (and largely demonstrated) a concept of matter that would render the ancients dyspneic.

Prof. Ribot's work might interest the old school man as psychology, but to the homœotherapist alone does it take on definite, enormous therapeutic value, for the homœotherapist alone has instruments of precision in this sphere, the pathogeneses of drugs and a law governing their usage, an actual technic of therapy in morbid psychic conditions.

Hence, the translation (with annotations) has been made:

I. Because of its practical value to the physician, showing him a scientific physiologic basis, hitherto not clearly comprehended, for many symptoms in mental diseases as well as in drug pathogeneses. Therapeutically, and for good reason, peculiar mental symptoms or states have no meaning to the old school doctor. "Moonshine, moonshine!" he cries. Ribot, the psychologist, demonstrates that there is no "moonshine" without a "moon." The physiopsychologist has established a foundation; the homœotherapist may build upon it, and no other than he can profit thereby, for only from the healthy-body-reaction (pathogenesis) do we gain the syndrome that becomes therapeutically applicable in many morbid states.

Inconsciently, Ribot has placed upon the tomb of Hahnemann in Père-la-Chaise a magnificent wreath of laurel, for those familiar with the Organon will recall Hahnemann's unique valuation of the mental symptoms and conditions in the individual case. This will be alluded to in the homœotherapeutic annotations to the text.

II. Because of the intrinsic psychologic value of the book. With a freedom from polyglottic gibberish almost Hahnemannian, and a lucidity of expression entirely Gallic, Ribot puts the student on a psychologic basis from which he will be difficultly moved. The facility with which many of the so-called leaders in modern psychology reverse "*multum in parvo*" into "*parvum in multo*;" the attractiveness to some minds of a "diarrhœa of words and a constipation of thought;" the gloriousness of the *ipse dixit* of such thinkers, admitting no controversy, since they deal only with things irreducible to

any proof, psycho- or physiologic, renders much of modern psychology fairly unintelligible.

III. Because of its conservative worth in these days of much mysticism; of exploitation of all sorts of "mental healing;" of "psychic atoms" (what in hell is a psychic atom?), etc., etc. Ribot gives us a working hypothesis, not a hypnosis course in the befuddlement of mind, abolition of volition and repression of research.

A careful study of the psychology of personality, volition and memory might fitly precede the consideration of homœopathic philosophy.

P. W. SHEDD, M. D.

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INTRODUCTION. (A)

In psychologic terminology we commonly understand by "person," an individual who has a clear consciousness of himself as an entity, and acts accordingly: the highest type or form of individuality. To explain this characterization (applied exclusively to man), metaphysic psychology contented itself with the supposition of an *ego*, a unitary, simple, homogeneous entity or thing. (B) Unfortunately,

(A) The numeral indices in the text refer to the bibliographic notes assembled together in the back of the book.

The capital letter indices refer to the homœotherapeutic annotations found on the same page with the text.

(B) Metaphysic medicine in its sphere pursued a like course regarding disease; in fact, the parallelism is striking. It was not until the Moscow Congress in 1897 that Virchow, the great man of the century (Jacobi), finally enunciated his doctrine that "pathology is but a branch of biology, *i. e.*, disease is life under altered conditions." Metaphysic medicine's concept, however, of disease as an entity well illustrates the childish tendency of the human mind to image a complex phenomenon as a *thing*, to give it almost personal individuality, as savages do with thunder and lightning, scourge and pestilence: as the Greeks did in their mythology; as old school medicine did with pathologic states until Virchow's day. In the note to § 8 of the *Organon*, Hahnemann quotes Hufeland's dictum: "Homœopathy can remove the symptoms but the disease remains," and remarks: "This he maintains, partly from mortification at the progress made by homœopathy to the benefit of mankind, partly because he still holds thoroughly material notions respecting disease, which he is still unable to regard as a *state of being of the organism* wherein it is dynamically altered by the morbidly deranged vital force, as an altered state of health, but he views the disease as a something

we have here only a pseudo elucidation or solution. Unless we confer upon this *ego* a supernatural origin, it becomes necessary to explain how it came into being, and from what inferior type or form it developed. Experimental psychology can neither present nor treat the problem supernaturally. Having learned from the naturalists how difficultly determined in many instances are the characteristics of individuality (much less complex, however, than those of personality), experimental psychology has a wholesome fear of such simple solution, and, far from supposing the question answered at the beginning, looks forward to a solution of the problem as the end-result of laborious investigation. It is quite

material which, after the cure is completed, may still remain lurking in a corner in the interior of the body in order some day during the most vigorous health to burst forth at its pleasure with its material presence! So dreadful is still the blindness of the old pathology! No wonder that it could only produce a system of therapeutics which was solely occupied with scouring out the poor patient." Hahnemann, nearly a century ago (*Spirit of the Homœopathic Doctrine of Medicine, 1813*), presented in unmistakable terms the concept of disease now accepted by the Virchowized old school: "To the explanation of human life, as also its two-fold conditions, health and disease. * * * Now as the condition of the organism and the healthy state depend solely on the state of life which animates it, in like manner it follows that *the altered state which we term disease consists in a condition* altered originally only in its vital sensibilities and functions, irrespective of all chemical or mechanical principles; in short, it must consist in *an altered dynamic condition, a changed mode of being*, whereby a change in the properties of the material component parts of the body is afterwards effected, which is a necessary consequence of the morbidly altered condition of the living whole in every individual case." (*Lesser Writings*, p. 618.)

Apparently, Hahnemann is to the old school what the ghost was to Hamlet, a something quite irrepressible.

natural, then, that the older school, somewhat "off its bearings," accuses the newer school of having stolen its *ego*, though no one has tried to do anything of the sort. The nomenclature and procedures of the two schools, moreover, are so different and opposed that mutual comprehension is no longer possible.

At the risk of increasing the confusion, I should like to investigate what teratologic and morbid, or merely rare, cases, may teach us concerning the formation and the dissolution of personality, not pretending, however, to consider the subject in its totality—an enterprise which seems premature in the present state of our knowledge.

Personality being the highest form or development of psychic individuality, the preliminary question arises: What is this thing, dubbed an individual? There are few problems more discussed nowadays by the naturalists, and few that are more obscure in the lower planes of animal life. Here, however, is not the place to take this up in detail. At the conclusion of the treatise, having studied the elements constituting personality, we shall consider it *in toto*. It will then be opportune to compare personality with those inferior forms through which nature has endeavored to evolve it, and to demonstrate that the *psyche* of the individual is but the expression of its organism; low in type or simple or incoherent or complex or unified, correspondent to the organism. For the present, it suffices to recall to readers already initiated in these studies, that in descending the animal scale, we observe the psychic individual being formed by the fusion, more or less complete, of simpler individuals—a colonial conscience develops

from the coöperation of local consciousnesses. These discoveries of the naturalists are of the greatest value to psychology. Thanks to them, the problem of personality undergoes transformation: it is among lower types that its study should be pursued, and one is led to the query whether the human personality also, be not an entity of coalition whose extreme complexity hides its origins, which were impenetrable for us did not the existence of elementary forms throw some light upon the mechanism of this coalition or fusion.

Human personality, the only one which we may pertinently discuss, particularly in a pathologic study, is a concrete entity, a complexus. To understand it, we must analyze it, yet analysis here is fatally artificial, for it disjoins groups of phenomena which are not in juxta-position but in coördination; whose relations with one another are not those of simple simultaneity but of reciprocal dependence. (A) This labor of analysis, nevertheless, is indispensable. Adopting a simple classification which I trust will justify itself, we shall study successively the *organic*, the *affective*, and the *intellectual* conditions of personality, emphasizing the anomalies and disturbances.

A final study will then permit a re-assembling of these disjoined elements.

Before entering upon an exhibition and interpreta-

A "In the healthy condition of man the spirit-like, vitalizing life-force (*autocracy*) reigns unhindered as dynamis over the material body (*organism*), and holds all its parts in marvelously harmonic vital functions of sensation and activity, so that the indwelling, rational mind may freely utilize this living, healthy instrument for the higher purposes of our existence."—*Organon*, § 9.

tion of facts, it will serve well, for reasons of clearness and good faith, to come to an agreement as to the nature of consciousness. [The translator is led here to coin a word which shall express better than "consciousness" the French "*conscience*." *Conscience* in English is the "still, small voice," the internal arbiter of right and wrong; consciousness is quite as related to the external world, the macrocosmos, as to the internal, the microcosmos. The French "*conscience*" (psychologic) would seem best rendered by *egoscience*, the knowledge or consciousness of self, of selfhood, and will hereafter often be so used.]

It is not the question here of a monograph embracing, so to speak, the whole of psychology; it will suffice to present the problem noted in precise form.

Neglecting details, we have before us but two hypotheses; one very ancient, which considers *egoscience* as the fundamental property of the "soul" or "spirit,"—its essential constituent; the other, very modern, which considers *egoscience* as a simple phenomenon superimposed on cerebral activity, as an event which has conditions of existence, and which, according to circumstances, develops or disappears.

The first hypothesis has dominated for so many centuries that its merits and defects are easily appreciated. I do not purpose to put it "on trial," but shall limit myself to demonstration of its radical impotence to explain the inconscient life of the spirit, though for a long time the partisans of the hypothesis have made no anabolic efforts in this direction. The views, so precise and profound, of Leibnitz upon this point are forgotten, or, at least,

not utilized, and even in the present century the best known psychologists of this persuasion (with a few exceptions) have remained within the limits of *their* egoscience. When, finally, the question is revived, it becomes evident to all that to subjugate the psychic life to the ultimata of the egoscience alone is a concept so arid, so narrow, that it becomes practically useless. We have had the admission of the existence of "inconscious states," an ambiguous and half-contradictory term which has spread quickly, which has its equivalent in all languages, but which, by its very nature, betrays the epoch of confusion in which it was engendered. What are these "inconscious states?" The more prudent thinkers admit their existence without endeavoring to explain them. The more daring talk of "latent ideas," of an "inconscious egoscience" (*conscience inconsciente*), expressions so vague, so full of nonsense, that many authors frankly confess the confusion. If, in fact, the soul is posed as "a thinking substance" whereof states of consciousness are the modifications, one may, by a manifest contradiction only, attribute to it "inconscious states;" hence, all the subterfuges of language, all dialectic acuity can make nothing of it, and, since we cannot deny the great importance of these inconscient (subconscious) states as factors in the psychic life, it becomes impossible to escape a dilemma.

The second hypothesis rids us of all this "war of words;" (A) it annihilates the suppositious prob-

(A) "The physician's mission is not to construct so-called systems by interweaving empty speculations and hypotheses concerning the internal, essential nature of the vital processes, and the mode in which diseases originate in the invisible interior of

lems which multiply in the other theory (for example, whether egoscience is a general or a particulate faculty), and we may fearlessly claim for it the grace of the *lex parcimonix*. It is simpler, clearer, more consistent. As compared with the old hypothesis, we may characterize it by saying that it expresses the inconscient in physiologic terms (states of the nervous system) and not in psychologic phrases (latent ideas, unfelt sensations, etc.). But, this is merely a particulate aspect of the newer hypothesis, which we should rather consider in its totality.

Let us first note that, like all general terms, the egoscience must be resolved into concrete particulates. As there is no "will" in general, but rather "volitions" or "states of willing," so there is no egoscience in general, but "states of consciousness;" (B)

the organism (whereon so many physicians have ambitiously wasted their talents and time); nor is it to attempt to give countless explanations regarding the phenomena in diseases and their proximate causes (which must ever remain concealed), wrapped in unintelligible words and an inflated, abstract mode of expression which should sound very learned in order to astonish the ignorant—whilst sick humanity sighs in vain for aid. Of such learned reveries (to which the name of theoretic medicine is given and for which special professorships are instituted) we have had quite enough, and it is now high time that all who call themselves physicians should at length cease to deceive suffering mankind with mere talk, and begin for once to act, that is, really to help and to cure." Note to § 1, *Organon*.

(B) Hahnemann parallels this psychologic truth in his consideration of disease:

"It is this morbidly affected life-force alone that educes diseases, so that the morbid phenomena perceptible to our senses, together with all internal change, is that which expresses the whole morbid derangement of the inner dynamis, or, in a word, reveals the disease *in toto*; and hence the disappearance under

these alone form the reality. As to defining the state of egoscience or the fact of being conscient, egoscient, this would be a futile task; the state of egoscience is an ultimate, final fact. Physiology teaches that its production is invariably related with activity of the nervous system, particularly the cerebral. But the reverse is not true; if all psychic activity implies neural activity, all neural activity does not imply psychic activity. Neural activity is far more extensive than the psychic; egoscience, therefore, is something superimposed, an out-growth, as it were. In other words, we must consider each conscient state as a complex phenomenon which presupposes a particulate state of the nervous system; that this neural process or procedure is not an adjuvant but an integral part of the event; even more, it is its basis, its fundamental condition; that as soon as this neural state is produced the phenomenon exists embryonally; as soon as egoscience is added thereto, the phenomenon is born; that egoscience completes and perfects the phenomenon, but does not constitute it.

With this hypothesis, it is easy to comprehend how all the manifestations of psychic life—sensations, desires, sentiments, volitions, memories, reasonings, inventions, etc., may be, in turn, conscient and inconscient. There is nothing mysterious in such alternation, since in all cases the essential conditions—*i. e.*, the physiologic conditions—remain the same for each phenomenon and the consciousness thereof, *i. e.*, briefly, egoscience is merely a perfecting or completion.

treatment of all phenomena of disease and of all perceptible alterations deviating from normal vital processes necessarily implies and conditions the renewed integrity of the life-force and hence the restoration to health of the entire organism.”—*Organon*, § 12.

It remains to determine why this perfecting is sometimes added, sometimes absent; for, if in the physiologic phenomenon itself there were not something *plus*, or additional, in the first case, we should indirectly contribute to the strength of the opponent hypothesis. If it could be established that each time certain physiologic conditions existed, the egoscience appeared; that, when these conditions disappeared, the egoscience also disappeared; that it varied with the physiologic variation, we should no longer be dealing with an hypothesis but with a scientific truth. We are, as yet, far from such certainty. However, one may predict absolutely that it will not be the egoscience that will furnish us with information concerning itself. As Maudsley justly remarks, it cannot simultaneously be cause and effect, —it and its molecular antecedents; it endures but an instant and can not return directly, intuitively to its immediate physiologic antecedents, and, moreover, a recession to these material antecedents would not be seizure of egoscience itself but of its cause.

It is chimerical, at present, to essay even a rough determination of the conditions necessary and adequate to the appearance of the egoscience. We know that the cerebral circulation, as regards both the hemic quantity and quality, has much to do with it. Experiments made on the heads of animals recently decapitated strikingly prove this. We know also that the duration of the nervous impulses or processes in the centres is contributory. Psychometric researches demonstrate that the state of egoscience requires a longer period of development the more complex it is, and that, on the contrary, automatic acts, primitive or acquired, whose rapidity of

execution is extreme, do not enter into egoscience. We may admit, also, that the appearance of egoscience is related to the period of discharge (katabolism) of neural tissue, as Herzen has shown in detail. But all these results are only partial conquests, whereas scientific knowledge of a phenomenon presupposes the determination of *all* the essential conditions.

Possibly the future will provide them. In the meantime, we shall gain more in corroboration of our hypothesis by demonstrating that it alone explains a chief characteristic (not a condition) of egoscience,—its intermittence. To avoid at once any misunderstanding, let it be noted that we are not discussing the discontinuity of states of conscience *inter se*. Each has its limitations, which, while permitting association with others, safeguard its own individuality. We are considering only the well-known fact that egoscience has its interruptions, or, in common phrase, that “one is not always thinking.”

It is true that even this assertion has been contradicted by the majority of metaphysicians. In reality they have never furnished any proofs in support of their thesis, and, since appearances are all against them, it would seem that the *onus probandi* fell to their lot. All their argumentation may be reduced to the statement that, since the soul is essentially a thinking thing, it is impossible that the egoscience be not existent always in some degree, even when no trace is left thereof in the memory. But, this is simply begging the question, for the hypothesis which we uphold justly contests their major premise. Their pretended proof is, definitely, merely a

deduction drawn from a contested hypothesis. It would exceed our purpose to consider here this question in detail; a review thereof will suffice.

If, avoiding all preconceived ideas, we hold ourselves to simple observation of facts, we collide at once with a great practical difficulty, viz., it is often impossible to decide whether there be *inconscience or amnesia*. If a state of conscience appear, last but briefly, do not organize itself into a memory, leave no trace of its passage, then for the individual it will, practically, not have existed. But the existence of these evanescent egosciences has been demonstrated; we have here not an absence of conscience or egoscience, but an absence of memory. Disregarding these cases, there remain others in which an impartial judgment finds it impossible to deny that a complete disappearance of egoscience is the only probable hypothesis.

It has been affirmed that sleep is never dreamless,—a purely theoretic assertion. The single fact that might be invoked in its support is, that the sleeper, when spoken to or interrogated, gives a sufficiently suitable reply and has no remembrance of it when awakened. But this fact does not justify a general conclusion.

Let us note furthermore—and this point is important—that all the investigators of a perfect cerebral sleep have been of an active, cultivated mentality (psychologists, physicians, literary men), in whom the brain is always awake, vibrating like a delicate instrument to the slightest excitation, possessing, so to speak, the habit of egoscience; so that those who query: Do we always dream? are the least fit to answer the question negatively. But, with those

engaged in manual occupations, the case is different. A peasant, far removed from all intellectual agitation, limited to the same occupation, to the same routine, does not commonly dream. I know several who consider a dream as a rare occurrence in their nocturnal existence. Nevertheless, some individuals of remarkable intellectual activity (Lessing, Th. Reed, etc.) have affirmed that they never dreamed. It is probable that certain slumbers succeeding periods of great physical fatigue are, at least momentarily, void of dreams. In surgical operations, the artificial anesthesia is rarely pushed to complete insensibility, yet it appears in certain instances noted in themselves by good observers (2), that complete inconscience is produced for a period varying from a few seconds to a minute or more. In epileptic vertigo, also termed "petit mal," an "attack," an "absence," complete loss of consciousness has often been noted; after the attack the patient takes up the interrupted phrase exactly where he left off (3); but I unhesitatingly ascribe this to amnesia, pure and simple; states known under the name of "epileptic ambulatory automatism" lasting for hours and days. Moreover, in returning to the normal condition a number of these patients themselves declared that they "seemed to be coming out of a dream." Shocks, blows on the head, sudden commotions ordinarily produce inconscience with retroactive amnesia, *i. e.*, the events immediately preceding the disturbance leave no trace in the memory, and there is thus produced in the mental life of the individual a gap or lacuna, varying in duration from a few seconds to several minutes. Dr. Hamilton, who has carefully studied these accidents from the medico-

legal standpoint (4), and who has assembled 26 authentic cases, considers it possible to establish as a law that the retroactive amnesia is in direct ratio to the duration of unconsciousness. If this be partial and brief, the retroactive amnesia covers a period of a few seconds; if it be total and extended, the amnesia increases proportionately.

I see no objection to data of this sort, except that we return to the inevitable hypothesis of states of conscience that leave no trace in the memory; but, I repeat, this is a gratuitous theory and improbable. Individuals, subject to swoons with complete loss of consciousness, well know that when in them they may fall, injure a limb, upset furniture, and, in returning to themselves, have no idea of what happened. Is it probable that these accidents, often grave, had they been accompanied by egoscience would have left no trace in the memory, persisting at least for a few seconds? We do not deny that in certain circumstances, normal or morbid (*e. g.*, in the hypnotized) states of conscience leave no apparent trace on waking but develop later, and we will delimit as much as is desired the cases of complete interruption of conscience, but, we have just shown that such interruptions do exist, and one such instance suffices to develop insurmountable difficulties for the hypothesis of the soul as a "thinking thing." By the opponent or newer hypothesis, all is easily explained. If egoscience is a phenomenon dependent upon predetermining conditions, there is nothing surprising in its occasional absence.

One might demonstrate, were this the place to consider fundamentally the question of egoscience, that in our hypothesis the relation of the conscient to the

inconscious presents nothing intermediate or contradictory. The term "inconscious" may always be paraphrased as: a physiologic state, which, being sometimes, or even most commonly, accompanied by egoscience, or having so been at the beginning, is not associated therewith at the present moment. This characterization, negative in psychology, is positive in physiology. The latter affirms that, in every psychic phenomenon, the fundamental and active element is the neural process or procedure, and that the other (egoscience) is concomitant only. Consequently, we have no further difficulty in comprehending that all manifestations of the psychic life may, in turn, be unconscious and conscious. In the first case, it is essential and sufficient that a determinate neural process be originated, *i. e.*, the setting into action of a determinate number of neural elements, forming a determinate association, and excluding all other neural elements and all other possible associations. In the second case, it is essential and sufficient that the supplemental conditions, whatever they are, be added to the phenomenon but without changing its nature except to render it conscious. It thus becomes comprehensible how unconscious cerebration accomplishes noiselessly so much work, and, after an incubation, often of long duration, reveals itself by unexpected results. Each state of consciousness represents but a very small portion of our psychic life, for it is at all times sustained and, so to speak, projected by unconscious states. Each volition, for example, reaches down to the depths of our being; the motives that accompany and apparently explain it are never more than a small part of the real cause. It is likewise with a great many of

our sympathies, and the fact is so plain that individuals most devoid of observational powers are often amazed that they cannot account for their loves and hates.

It would be supererogatory and beyond our purpose to continue demonstration further. If the reader desire, he may turn to the section on "Phénoménologie" in the "*Philosophie de l'inconscient*" by Hartmann. He will find there classified all the manifestations of the inconscient psychic life, and he will see that there is no fact not explicable by the hypothesis mentioned here. Let him then put the other (older) hypothesis to the test!

A final point remains for examination. The theory which considers egoscience (the state of being conscient) as a phenomenon, and which is derived (as we might demonstrate if the digression were proper here) from this fundamental principle in psychology: "The reflex is the *typus* of neural action and the *basis* of all psychic activity" has appeared paradoxical and irreverent to many excellent minds. For them it seems to rob psychology of all solidity and dignity. They dislike to admit that the highest manifestations in nature are unstable, fugacious, superimposed, and, in regard to their conditions of existence, subordinate. However, this is merely prejudice. Egoscience, whatever be its origin and nature, loses nothing thereby; it is for itself that it should be appreciated, and, to him who looks at it from the viewpoint of evolution, it is not the origin but the height attained that counts. Experience elsewhere has shown us that as one ascends the scale of life, the natural aggregations become more complex and unstable. Were stability the measure of

dignity, the minerals would rank first. This objection, altogether sentimental, is, therefore, not admissible. As for the difficulty of explaining by this hypothesis the unity and continuity of the conscient subject, it would be premature to speak of it at present. It will find solution at the proper time.

There is, however, a weak side to the hypothesis of egoscience as phenomenon. Its most ardent partisans have supported it in a form which marks them as adherents of a pure automatism. According to their favorite comparison, egoscience is like the headlight of a locomotive, lighting up the road-bed, but without effect upon progress; as ineffectual and inactive as the shadow dogging the steps of a traveler. If these metaphors had no other aim than to present the theory in a lively form, comment would be unnecessary, but, taken in the strict sense, they are exaggerated and inexact. Egoscience is, in itself and for itself, a new factor, and in this there is naught mystical or supernatural as we shall see.

By the hypothesis itself, the state of egoscience, presupposing physiologic conditions greater in number (or at least different) than in the inconscient state, it follows that two individuals, one conscient, the other inconscient, are, strictly speaking (all else being equal), not comparable.

Other reasons—not logical deductions, but facts—even more cogent may be cited. When a physiologic state has become a conscient state, the fact of conscience gives it a particulate character. Instead of being located solely in *space*, *i. e.*, figuring as the setting into action of a certain number of neural elements which occupy a determinate superficies, it has acquired the element of *time*; it was produced *after*

a certain event and *before* a certain other event, whilst for the inconscient state there exists no *before* nor *after*. The conscient state is capable of being recalled, *i. e.*, recognized as having occupied a definite position among other conscient states. It becomes, therefore, a new factor in the psychic life of the individual; a result which may serve as the point of departure for some new conscient or inconscient labor, and it is so little the product of a supernatural process that it is reducible to the organic (cellular) registration which is the basis of all memory.

To be still more precise, let us study some examples. Volition is always a state of conscience (egoscience), the affirmation that some one thing should be accomplished or hindered; it is the final and unequivocal consensus of a great number of conscient, subconscient and inconscient states; but, once affirmed, it enters as a new factor into the life of the individual, and in the position assumed marks a sequence—with the possibility of being re-begun, modified or prevented. There is nothing similar to this in automatic acts not accompanied by conscience (egoscience). The novelists and poets, excellent observers of human nature, have often described the situation, where a passion—love or hate—long hidden, inconscient, ignorant of its own existence, has finally come to the light, become cognizant of itself, clearly defined and conscient. Its character then changes; it is redoubled in intensity or is checked by antagonistic motives. Here again egoscience is a new factor modifying the psychologic situation. One may instinctively, *i. e.*, by an inconscient cerebration, solve a problem, but it is extremely possible that some sequent time an analogous problem will prove

unsolvable. If, on the contrary, the solution has been attained through conscient reasoning, sequent failure is far less probable, for each step is toward an already acquired position and hence, one is not proceeding blindly. This does not derogate at all, however, from the role played by inconscient cerebration in inventions and discoveries.

These illustrations, selected haphazard, suffice to show that the metaphors just cited are true for each conscient state taken *per se*. In itself it is nothing but an illuminative phenomenon, the simple revelation of an inconscient labor, but in relation to the future development of the individual it is a factor of the first order.

That which is true of the individual is also true of the species and of a succession of species. From the single viewpoint of "the survival of the fittest," and with no regard to psychologic considerations, the appearance of egoscience in the world was an incident of the greatest import. Through it, experience, *i. e.*, adaptability of superior order, became possible for the animal. Its origin we do not need to investigate. Very ingenious theories have been exploited concerning this subject, theories entering into the domain of metaphysics, and with which experimental psychology is not concerned, for this science considers conscience (egoscience) only as a *datum*, a fact. It is probable that egoscience, like all other vital manifestations, first appeared in rudimentary form apparently of small efficiency. But as soon as it was able to leave a residue, to form in the animal, a memory (in the psychic sense) which capitalized its past to the profit of its future, a new chance of survival was engendered. To inconscient,

blind, accidental adaptation was added a conscient, consecutive adaptability, dependent upon the animal, and more sure and rapid than the other, and thus the labor of selection was lessened.

The role of conscience (egoscience) in the development of the psychic life is therefore evident. If I have insisted much upon this point, it is because the exponents of the modern hypothesis sustained here have considered it only in its presence without occupying themselves with the results of its appearance. They have well said that it illumines; they have not demonstrated that it augments or adds. We repeat, egoscience, in itself, is merely a phenomenon, an accompaniment. If animals exist in which it appears and disappears every instant, leaving no trace, it is rigorously exact to denominate them as psychic automats; but, if the conscient state leaves a residue, a registration in the organism, it acts not only as indicator but as condenser. The metaphor of the automat is no longer acceptable. This admitted, many of the objections to the theory of egoscience as phenomenon disappear of themselves. The hypothesis is completed, not weakened.

DISEASES OF THE PERSONALITY.

CHAPTER I.

ORGANIC TROUBLES.

I shall insist at length upon the organic conditions (or basis) of personality, for upon these everything rests, and by them all else is explained. Metaphysical psychology concerned itself but little with them, and this was logical, since for such psychology the *ego* came from above, *ex cœlo*, and not from below. For us, on the contrary, it is among the most elementary phenomena of life that we have to seek the elements of personality; it is these that hall-mark it and give it character. It is in the organic sense, the sense of a body, a *corpus*, ordinarily vague and obscure in us, sometimes sharply defined, which is the basis for the psychic individuality of each animal. (⁵) This is the "principle of individuation," so sought for by the scholastic doctors, for upon it all rests, directly or indirectly. We may consider as extremely probable that as one descends toward the lower animals the body-sense becomes more and more preponderant until finally it includes the entire psychic individuality. But, with man and the higher animals, the tumultuous ocean of desires, passions, perceptions, images, ideas rolls over this silent depth; except at intervals it is forgot because it is ignored. As in sociology so it is here. The millions of human beings that compose a great nation are reducible,

for themselves and for others, to a few thousand individuals which form its conscience (egoscience); which include its social activity in all its phases: politics, industries, commerce, intellectual culture. Nevertheless, it is these millions of ignored beings, born to a limited and localized existence, living and dying without hubbub, that do everything else; without them the nation ceases to exist. They constitute the inexhaustible reservoir whence by rapid and brusque selection some rise to the surface; but these privileges of talent, of power or of wealth are ephemeral only. The degenerescence fatally inherent in all who excel will attack them and their race, whilst the dullard labor of the ignored millions will continue to engender others and imprint upon them a character.

Metaphysical psychology regards only the mountain summits, and, self observation (*γνωθι σαυτον*) gives little information of what is taking place in the interior of the body; hence, the study of general sensitivity has been primarily and chiefly the work of the physiologists.

Henle (1840) defined general sensitivity, or "cenes-thesia," as "The *tonus* of the sensory nerves, or the perception of the state of average activity constantly characteristic of these nerves, even at times when no external impression is present as stimulus." And elsewhere: "It is the sum total, the chaos of sensations which, from all points of the body, are incessantly transmitted to the sensorium. More precisely, E. H. Weber interprets it as: "An internal sensitivity, an interior transmission which furnishes the sensorium with information as to the mechanical and chemico-organic states of the skin, mucosæ, serosæ, viscera, muscles and articulations."

The first in France to react against the doctrine of Jouffroy was a medical philosopher, Louis Peisse. Jouffroy held that we cognized our own body objectively only, as a solid mass in space, as all other objects in the universe external to the ego and foreign to the perceiving individual are cognized, *e. g.*, his table or the chimney-piece. Peisse demonstrated, in rather timid terms, however, that the cognizance of our body is, above all, subjective. His description of the organic conscience (egoscience) seems to me too exact not to be cited at length: "Is it certain," he says, "that we are absolutely inconscient of the exercise of the organic functions? If the question be of a clear, distinct, locally determinable egoscience (conscience) like that which we possess of external impressions, it is evident that this is lacking; but we may well have a noiseless, obscure, and, so to speak, latent conscience, analogous, for example, to that of the sensations which provoke and accompany respiratory movements, sensations which, though necessarily repeated, pass as unperceived. In fact, may it not be considered as a faint re-echo, feeble and confused, of the general vital action, the remarkable sensation which informs us without discontinuity or remission of the actual existence of our own body? Almost invariably, and wrongly, this sensation has been confounded with the accidental and local impressions which during our waking hours rouse and continue the mechanism of sensitivity. These impressions, though constant, are but fugitive, transient apparitions on the theatre-stage of conscience, whilst the sensation of which we speak continues, persists underneath the mobile stage. Condillac, properly enough, termed it the fundamen-

tal sense of existence; Maine de Biran denominated it the sensation of sensorial being. Through it the body continually appears to me as *mine*, and the *psyche* senses itself, feels itself as existent, in a degree, locally, throughout the limited extent of the organism. As perpetual, never-failing guardian, it renders the state of the body ever present to the egoscience, and this shows in the profoundest manner the indissoluble connection between psychic and physiologic life. In the ordinary state of equilibrium which constitutes health, this sensation is, as we have said, continuous, uniform, unvarying, which prevents its presentation to the ego as a state of distinct, special, local sensation. To be clearly cognized it needs to acquire a certain intensity; it then expresses itself as a vague impression of general well-being or malaise, indicating in the first instance a simple exaltation of the physiologic vital action; in the second, a pathologic perversion, which, however, is not tardy in localizing itself in the form of particulate sensations attributed to this or that region of the body. Sometimes it reveals itself more indirectly, but even more evidently, when there is failure of function in some given part of the organism, *e. g.*, a paralyzed limb. The limb still belongs, naturally, to the living aggregate, but is no longer comprised within the sphere of the organic ego, if such expression be permissible. It ceases to be apperceived by this ego as its own, and the fact of this separation, though negative, translates itself as a particulate positive sensation, cognized by anyone who has experienced the complete numbing of a part, whether from cold or compression of nerves. Such sensation is nothing but the expression of the *lacuna* or loss felt by the gen-

eral sense of corporeal being; it proves that the vital state of such part or limb was actually, although obscurely, sensed, and constituted one of the partial elements of the general sense of life felt by every organic entity. Thus, the continued and monotonal noise of a carriage in which one is riding is not perceived (though always heard) until it suddenly ceases, when its cessation is instantly remarked. The analogy may help to comprehend the nature and existence of this fundamental sentiment of organic life, which, by this hypothesis, could be naught else than a resultant *in confuso* of impressions received at all sentient points from functional activities and transmitted to the brain, either directly by cerebro-spinal nerves or indirectly by nerves of the sympathetic system.”^(A)

Since the epoch when Peisse (1844) wrote the above, physiologists and psychologists have labored in the study of the elements of this cenesthesia or general sensation of bodily existence. They have determined that each vital function contributes its share; have shown how complex is this confused sensation of life, of living, which by incessant repetition has so intimately become egoistic that to search for it would be to search for ourselves. (A)

(A) “Just so it is with the physician. That which binds in so wonderful an organization the (maybe originally chemical) constituents of the human frame in life—which causes them in spite of this, their original nature, to act in quite an unmechanical and unchemical manner—which excites and impels them, when thus combined, to such automatic performances (which do not obey any of the known laws of mechanics and differ from every chemical process and all physical phenomena); this fundamental force does not reveal itself as a distinct entity; it can only be dimly surmised from afar, and is forever concealed from all inquiry and

Hence we cognize it only by its variations above or below the norm.(') (B) In special works may be found the study in detail of these vital functions and their psychic equivalents; a brief review will suffice here.

In the first place, we have the organic sensations related to respiration, the sense of well-being produced by pure air; of suffocation in ill-ventilated

observation. No man is acquaint with the substratum of vitality or the *a priori* hidden arrangement of the living organization—no mortal can ever dive into it, nor can human speech, either in prose or verse, even faintly shadow it forth; the attempt ends in fiction and sheer nonsense.

Throughout the course of two thousand years and upwards, in which men have prided themselves on the cultivation of philosophy and medical science, no single step, not the smallest, has been made toward an *a priori* knowledge of the vitality of the human frame or of the intellectual energy (soul) which actuates. All that inflated bombast, passing for demonstration, abounding in words but void of sense—all the antics and curvets of the sophists about undiscoverable things, are ever vain and, to the modest spirit of the true philosopher, perfectly insufferable."—Hahnemann: *On the Value of Speculative Systems of Medicine*, *Allgemein. Arz. der Deutschen*, Nr. 263, 1808.

(B) "There is no curable morbidity, and no invisible pathologic but curable alteration, in the interior of man which does not reveal itself by morbid signs and symptoms to the accurately observing physician—in perfect accord with the infinite goodness of the omniscient Preserver of humankind.

"The sufferings of the morbidly deranged, spirit-like dynamis (life-force) in the invisible interior vitalizing our body, and the totality of the exteriorly perceivable symptoms representing the morbidity present and developed by the life-force in the organism, form, in fact, a unity, one and the same thing. Truly the organism is a material instrument of life, but, unvitalized by the instinct-like, sensing and coördinating life-force, it is inconceivable (and equally so life-force without organism), and hence, the twain together form a unity, although in thought our mind divides this unity into two concepts for the sake of easier comprehension."—*Organon*, §§ 14, 15.

rooms; those derived from the alimentary tract; others, still more general, related to the state of nutrition. Hunger, for example, and thirst, in spite of appearances, have no precise localization; they result from a malaise of the entire organism, a hematic appeal for food. As regards thirst in particular, the experiments of C. Bernard show it to be due to a lack of water in the organism, not to a dryness of the pharynx. Of all functions, that of the general and local circulation has, perhaps, the greatest psychologic influence, its variations being of importance in a series of individuals, and at different times in the same individual. Let us recall, also, the organic sensations arising from the muscular state, the sense of fatigue, exhaustion, or the contrary; finally, the group of muscular sensations which, associated with the sense of sight and touch, play so important a role in the formation of our fund of knowledge. Even when observed alone in a purely subjective form, the muscular sensitivity reveals to us the degree of contraction or relaxation of muscles, the position of limbs, etc. I purposely omit the organic sensations of the genital apparatus; these will be considered when studying the affective (affectional, emotional) bases of personality.

If the reader will endeavor for a moment to bring before the mind's eye the multitude and diversity of the vital actions we have just classified under their most general titles, he will gain some idea of what must be understood by the term, the physical bases of personality. (A) Forever active, their continu-

(A) "All that the physician can know regarding his subject-matter, vital organization, and all that concerns him to know, is summed up in that which the wisest among us, such as Haller,

ousness compensates for their feebleness as psychic elements. And, as the higher forms of psychic life disappear, these sensations become preponderant. A precise illustration may be found in dreams, agreeable or disagreeable, caused by organic sensations (nightmare, erotic dreams, etc.). (B) One may even

Blumenbach, Wrisberg comprehended and taught under the term physiology and which we might designate the *empiric knowledge of vitality*, namely, *what the appreciable phenomena are which occur in the healthy human body, and what their connection is; the inscrutable how they occur*, remaining entirely excluded.

I pass on to pathology, a science in which that same love of system which has crazed the brains of the metaphysical physiologists has caused a like misapplication of intellect in the attempt to search into the essential nature of diseases that whereby affections of the system become manifest diseases. This they term the doctrine of *proximate, internal causes*.

No mortal can form a clear concept of what is here aimed at, to say nothing of the impossibility of any created intelligence, even in imagination, finding a road to an intimate view of what constitutes the essence of disease; and yet hosts of sophists with important looks have affected to play the seer's part in the matter.

After humoral pathology (that conceit which took especially with the vulgar, of considering the human body as a vessel full of impurities of all sorts and of acidities with Greek epithets, which were supposed to cause the obstruction and vitiation of the fluids and solids, putrefaction, fever, everything, in short, whereof the patient complained, and which they fancied they could overcome by sweetening, diluting, purifying, loosening, thickening, cooling, and evacuating measures) had, now under a gross, now under a more refined form, lasted through many ages, with occasional interludes of many lesser and greater systems, to wit: the iatromechanical system; the system which derives disease from the original form of the parts; that which ascribes them to spasms and paralysis; the pathology of the solids and nerves; the iatrochemical system, etc., etc.—Hahnemann, *Op. cit.*

(B) The cerebral operations noted during sleep as dreams have always been recognized in homœotherapy as having clinical value.

assign to each organ with considerable precision the part which it plays in these dreams: the sensation of weight, oppression, seems to be associated particularly with digestive and respiratory affections; the sensation of struggle, of combat, with cardiac troubles. In rarer cases pathologic sensations, unperceived in the waking state, resounded in dreams as premonitory symptoms. Armand de Villeneuve dreamed of being bitten on the leg by a dog; a few days later a carcinomatous ulcer developed on the

In Kent's encyclopedic repertory, ten full pages are given to dream symptoms, *i. e.*, to the particulate cerebral impression, made upon the brain as the final recipient and exponent of the organism by drugs administered to the healthy (*pathogeneses*), and producing more or less subtle organic or functional change or imbalance, impressions which are psychically transmuted into divers dream symptoms, quite in accordance with Ribot's modern psychologic interpretation of the subject.

To briefly illustrate, we have formed a short repertory of the dream-types (and their analogues) mentioned by Ribot.

DREAMS.

Agreeable, pleasant: Ant. c., arn., aurum, CALC., carbo an., coff., con., croc., graph., kali c., lach., mag. c., NAT. C., nat. m., nux v., OP., phos. ac., phos., plat., PULS., sabad., SEP., sil., STAPH., sulf., VIOLA TRI.

Amorous: Alum., ant. c., aurum, camph., cann. I., canth., carb. ac., cic., cob., con., cycl., dig., dios., gels., raph., ign., iris, kalm., kali br., kali c., LACH., lil. t., lyc., NAT. C., nat. m., NUX V., OP., petr., PHOS. AC., phos., plat., puls., sabad., sars., sep., sil., STAPH., tarax., thuja, VIOLA TRI.

Anxious: ACON., alum., ambra, amm. c., amm. m., anac., arg. n., ARN., ARS., aur., bapt., bar. c., bell., bry., calc., camph., canth., carbo veg., caust., cham., china, cist., COCC., con., croc., dros., ferr., gamb., GRAPH., hell., hep., hyos., ign., iod., kali c., kreos., lach., lauro., led., lyc., MAG. C., mag. m., mag. s., mang., merc., nat. c., NAT. M., nat. s., nit. ac., NUX V., op., petrol., phos. ac., PHOS., plat., psor., PULS., ran. b., ran. s., rheum, RHUS, sars., sep., SIL., SPONG., stram., sulf. ac., SULF., THUJA, ver. a.

limb. Gessner thought, when asleep, that he had been bitten in the left side by a serpent; shortly afterwards in the same place an anthrax appeared, resulting in death. Macario dreamed of a violent sore throat, but awoke unaffected; within a few hours, however, he had an intense tonsilitis. A man saw an epileptic in his dreams; within a short time he himself became epileptic. A woman dreamed of speaking to a man who could not reply because he was dumb; when she awoke, she was aphonic. In

Buried alive, of being: ARN., chel., ign.

Crushed, that he would be: SULF.

Difficulties: AM. M., ARS., graph., mag. c., phos.

Disease: Bar. c. (sore throat); calc., kreos., lyc., NUX V.

Distressing: Bry., cimicif., hyper., nux v., raph., rhus.

Dog, bitten by, of being: Calc., hydrophobinum, merc., SULF., ver. a.

Epilepsy: Iris f., mag. c., sil.

Exertion, of making great: ARS., rhus.

Fatiguing: Asc. t., aur., bell., carb. s., graph., mag. c., phos ac., phos., verat. a.

Fights: All. c., ferr., nat. m., ran. s., staph.

Frightful: Amm. m., ant. c., aran., arg. m., arn., ARS., aur., bapt., bell., bis., BORAX, bry., CALC., calc. ph., camph., cann. s., carl., cham., chel., chin., COCC., colch., con., croc., cycl., eup. pur., graph., hyos., kali br., lauro., lyc., mag. c., mag. m., med., merc., nat. c., NAT. M., NICC., nit. ac., nux v., PULS., ran. s., SIL., sulf.

Horrible: Arg. n., calc., GRAPH., kali br., kali c., kali i., lyc., med., nat. m., nux v., phos., psor., sil., staph., sulf.

Insects: Arg. n., cinn. and croc. c. (spiders); phos. (stung by an insect.)

Mental exertion: Acon., anac., arn., bry., chin., graph., IGN., lach., nat. m., NUX V., oleand., phos. ac., phos., puls., rhus, sabad., sulf., thuja, viola tri.

Murdered, of being: Amm. m., chel., guaiac., ign., kali i., LACH., lact., lyc., merc., sil., zinc.

Nightmare: Acon., alum., amm. c., bapt., borax, bry., calc.,

all these cases we cognize as facts those obscure incitations, which, rising from organic depths, reach the nerve centers, and which the conscient life, with its tumult and perpetual motion, conceals rather than reveals.

It is clear that the implicit confidence so long accorded by psychology to the phenomena of conscience alone, must have cast in the shade the organic elements of personality; physicians, on the contrary, by professional training, must have been led to emphasize them. The doctrine of temperaments, (A)

camph., cann. I., cham., cinn., con., cycl., ferr., guaiac.,
iod., led., nat. c., nit. ac., nux v., PÆON., sil., SULF.

Quarrels: Arn., bapt., bell., bry., caust., crot. h., kali n., mag. c.,
NUX v., phos., puls., sel., stann.

Sad: Ars., nat. m., nux v., puls., rheum.

Snakes: Alum., arg. n., bov. (of being bitten by); grat., iris,
kali c., lac. c., ptel., ran. s., rat., sep., sil., sol. n., spig.,
tabac.

Stone lying on him: Kali c.

Strangled, of being: Phos., sil., zinc.

Suffocation: Arn., iris, kali bi.

Unpleasant: Cann. s., cimic., gels., SULF.

Vexatious: Alum., ambra, ASAR., ars., bry., cann. I., caust.,
con., gamb., gels., GRAPH., ign., mosch., nat. m., nit. ac.,
nux v., rhus, staph., SULF.

(A) In the Hippocratic age, the four primary temperaments were: Sanguine, Phlegmatic, Choleric, Melancholic, dependent respectively upon what were then called the four primary *fluida*: blood, phlegm, yellow bile, black bile. To these was later added the Nervous. Spurzheim classified temperaments or constitutions as Lymphatic, Sanguine, Bilious, Nervous. Still later, and now generally accepted where any attention is paid to the matter, a classification was based upon the three great systems of organs found in the body, *viz.*, the Motive (or mechanical); the Vital (or nutritive); the Mental (or nervous) whence the Motive, Vital and the Mental temperaments.

Classifying the remedies found most useful under the above rubrics, we have:

old as medicine itself, always subject to criticism, always being remoulded, is the expression, vague, contourless, of the chief types of physical personality as discovered by observation, together with the principal psychic characteristics arising from them. The rare psychologists, who have studied the various types of character, have sought their physical basis here. Kant did this a century ago. If the determination of temperaments could be made scientific, the question of personality would be much simplified. Until then, the first thing to get rid of is the preconceived opinion that personality is mysteri-

Motive: Such remedies as aconite, allium sat., arsenic, bryonia, chamomilla, colocynth, digitalis, ferrum, ignatia, kreosote, lycopodium, natrum mur., nitric ac., nux vom., platina, phosphorus, rheum, sarsaparilla, silica, staphisagria, sulfur.

Vital: Antimonium crud., arsenic, belladonna, calcarea, chelidonium, ferrum, graphites, hepar, iodine, kali c., natrum mur., phos. ac., pulsatilla, sepia, silica, sponsia, sulfur.

Mental: Arsenic, chamomilla, coffea, cuprum, ignatia, lycopodium, phosphorus, platina, silica, stannum, sulfur, zinc.

These remedies, naturally, impinge upon one another, and so do the temperaments, forming various combinations: Motive-vital, Vital-motive, Motive-mental, Mental-motive, Mental-vital, Vital-mental, *i. e.*, mixed temperaments.

The *Lymphatic* (anciently Phlegmatic) is typified in calcarea and its analogues, belladonna, graphites, hepar, kali bi., kali c., mercurius, pulsatilla, sepia, sulfur; the *Nervous*, in arsenic, causticum, chamomilla, conium, cocculus, cuprum, gelsemium, ignatia, lachesis, liliu tig., magnesia c., natrum mur., picric ac., platina, silica, zinc; the *Sanguine*, or full-blooded, aconite, agaricus, arnica, belladonna, bryonia, cuprum, hepar, phosphorus, pulsatilla, sulfur; the *Bilious*, bryonia, causticum, chelidonium, ferrum, hepar, hydrastis, iris, kali c., leptandra, magnesia c., mercurius, nitric ac., nux vom., picric ac., sanguinaria, sepia, sulfur.

ous in character, something fallen from the skies, without antecedents in nature. If we observe merely the animals about us, there is no great difficulty in admitting that the difference between a horse and a mule, a goose and a duck, their "principle of individuation," can only come from a difference of organization and adaptation to environment, with the psychic consequences resulting therefrom; and that, in the same species, the differences between individuals cannot primally arise otherwise. There is no reason in nature for considering man as a thing apart; only in his case the extreme develop-

Grauvogl, regarding the matter of temperaments from the viewpoint of chemistry, physics, and therapeutic experience, made an entirely new classification:

I. *Hydrogenoid*, characterized by an excess of water, particularly in the blood.

II. *Oxygenoid*, characterized by the increased oxidizing abilities of the organic elements.

III. *Carbo-nitrogenoid*, characterized by the lessened intake of ozone or oxygen, and favoring the accumulation or retention in the organism of carbo-nitrogenous substances.

Further, as regards the susceptibility of these constitutions or temperaments to the three great miasms or infections: sycosis, psora, syphilis (gonorrhœa, tuberculosis, syphilis), he related them as follows:

Hydrogenoid: sycotic.

Oxygenoid: syphilitic.

Carbo-nitrogenoid: psoric.

Note that his carbo-nitrogenoid constitution is one where subkatabolism is predominant; and then note the forms of disease attributed by Hahnemann to the psoric infection: nervous debility, hysteria, hypochondriasis, mania, melancholia, imbecility, madness, epilepsy, convulsions, rachitis, scoliosis, kyphosis, caries, cancer, fungus hematodes, neoplasma, gout, hemorrhoids, jaundice, cyanosis, dropsy, amenorrhœa, hemorrhages, asthma, ulceration of the lungs, impotence, sterility, migraine, deafness, cataract, amaurosis, calculus, etc. (*Organon*, § 80),

ment of the intellectual faculties causes illusions and obscures the origins.

The psychic personality, understanding thereby the simple sensing of the state of the organism, a manner of being in which, hypothetically, all conscience (egoscience) clear or obscure, inherent or due to some external impression, should be absent!..... does it exist in nature? Evidently not in the higher animals, and it cannot be postulated in such guise save under the title of an extremely artificial abstraction. It is probable that this form of psychic individuality, consisting simply in the conscience which

some of them, *e. g.*, jaundice, dropsy, merely symptoms, but, through all of them, and especially in the neoplasms, runs the red thread of subkatabolism, accumulation, retention within the organism.

Grauvogl, remedially, gives the following indications:

Hydrogenoid: Alumen, ammonium mur., antimonium tart., apis, aranea diad., arnica, arsenic, borax, bromine, calcarea, carbo v., chlorum, conium, iodine, ipecac, natrum acet., natrum mur., natrum nit., NATRUM SULF., nitric ac., nux vom., magnesia carb. and phos., pulsatilla, silica, spigelia, thuja.

Oxygenoid: Aconite, arsenic, benzoin, the carbons, china, chininum sulf., chrom., citric ac., graphites, hydrocyanic ac., kali bi., kali i., kreosote, laurocerasus, nitric ac., many *narcotics*, and all metals hindering oxidation.

Carbo-nitrogenoid: Argentum, aurum, belladonna, bovista, camphor, chamomilla, cuprum, digitalis, dulcamara, ethereal oils, hyoscyamus, hepar, lobelia, lycopodium, mercurius, nux vomica, opium, plumbum, phosphorus, platina, rhus, sulfur, sulfuric ac., terebinth.

We append also Hahnemann's list of *antipsorica*: agar., alumina, amm. c., amm. m., anac., ant. c., ars., bar. c., borax, calc., carbo v., caust., clem., colocy., con., cup., dig., dulc., euphorb., graph., guaiac., hep., iod., kali c., kali nit., lyc., mag. c., mag. m., mang., mez., mur. ac., nat. c., nat. m., nit. ac., petrol., phos., phos. ac., plat., sars., sep., sil., stann., sulf., sulf. ac., zinc.

the animal has of its own body, exists in the lower animals, not, however, in the lowest.

In these last—and multicellular individuals, *i. e.*, composed of cells perfectly alike, furnish an illustration—the constitution of the organism is so homogeneous that each element lives for itself, each cell has its own action and reaction; but their totality no more represents an individual than six horses uniting forces to draw a vehicle constitute a horse. There is neither coördination nor consensus, but merely juxtaposition in space. If, as asserted by some authors, there may be attributed to each cell the analogue of a conscience or egoscience (which would be only the psychic expression of its irritability), we should have an example of egoscience in the state of complete diffusion. Between the elements there would be an impenetrability which would permit the existence of the entire mass in a state of living matter without even an external unity.

Higher in the animal scale, *e. g.*, in the hydras, observation demonstrates a certain consensus in the actions and reactions and a certain division of labor. But the individuality is extremely precarious. Trembly with scissors cut one individual into fifty; and, inversely, of two hydras one may be made; it suffices to turn the smaller hydra inside out before introducing it into the larger, in such manner that the two entoderms touch and fuse. In so far as an opinion may be hazarded in so obscure a matter, the adaptation of movements denotes a certain unity, temporary, unstable, at the mercy of circumstance, which, perhaps, cannot exist without a degree of obscure egoscience in the organism.

If it be thought that we are persisting in too low a plane of life, we may ascend at pleasure (for any determination of this sort is arbitrary) to fix the point where the animal has only the conscience of its organism, of that to which it is subject and which it produces, *i. e.*, has only an organic egoscience. It may be that this form of conscience in a pure state does not exist; for, as soon as the rudiments of the special senses appear, the animal rises above the plane of general sensitivity; on the other hand, can general sensitivity alone constitute an egoscience? We know that the human fetus makes effort to get out of an uncomfortable position, responds to cold, to painful irritation; but, are these inconscient reflexes?

I hasten to get away from such conjectures. What is, at least, indisputable is, that the organic egoscience (*i. e.*, the conscience that the animal has of its body and naught else than its body) is in the much greater portion of the animal creation enormously preponderant; that it is in inverse ratio to the higher psychic development; that always and everywhere this organic egoscience is the basis upon which individuality rests. Because of it, everything is; without it, nothing is. The contrary is not comprehensible, for is it not true that through the organism come all external impressions, the primal nutriment of all intellectual life? And what is of greater import—is it not within it that the instincts, sentiments, aptitudes peculiar to each species, to each individual, are inscribed and fixed by heredity, we know not how, but the facts prove it with an unshakable solidity?

If then we admit that the organic sensations pro-

ceeding from all tissues, from all organs, from all movement; in a word, from all the states of the body, are represented in some degree, in some form in the sensorium; and, if psychic personality is naught else than their totality, it follows that it should vary with them and according to them, and that these variations are of all possible degrees, from a simple malaise to the complete metamorphosis of the individual. The examples of "double personality" about which so much has been talked (we shall return to this later) are merely extreme cases. With patience and sufficient research we should be able to find in mental pathology enough observation to establish a progression, or rather a continued regression, from the most transient change to the most complete alteration of the *ego*. The *ego* exists only on the condition of varying continually; this point is uncontested. As to its identity, it is not a question of number; it persists insomuch as the sum of states which remain relatively fixed is greater than the sum of states which are added to or detached from this stable group.

At present we have to study only those disorders of personality directly related with organic sensations. Since of itself the general sensitivity has a psychic value comparatively feeble, it produces only partial disturbance, unless the alteration be total or abrupt.

Let us begin by noting a state scarcely morbid, known probably to everybody, which consists in a sensation of exhilaration or of depression, without any known cause. The ordinary *tonus* of vitality changes; it rises or falls. In the normal state there is a positive "euphoria" or well-being; from the

body proceeds neither malaise nor a noticeable sense of health. Occasionally, on the contrary, the vital functions become exalted; activity abounds and seeks outlet; everything seems easy and profitable.

This state of well-being, at first entirely physical, propagates itself throughout the entire nervous organization and arouses a number of agreeable sensations to the exclusion of the disagreeable. Everything looks "rosy" when in such a state. Sometimes we have the obverse, a state of malaise, of enfeeblement, inertia, impotence, and, consequently, sadness, fear, disagreeable or depressing moods, when everything looks "black." In either case, however, no news, no event, nothing external can be cited in justification of this sudden joy or sadness.

Assuredly we cannot say here that personality is transformed in an absolute sense. The change is relative. For himself, and still more for his associates, the individual is changed, is no longer the same. Translated into the language of analytic psychology this is equivalent to saying that "his personality is composed of elements, some relatively stable, the others variable; that the variability having greatly exceeded its average amount, the stable or fixed portion becomes subordinate, without, however, being obliterated."

If we now suppose (and this hypothesis is daily realized) that the change persists instead of disappearing after a short time with sequent return to the normal state; if, in other words, the physical causes which evolved it are permanent instead of transitory, then a new physical and mental habitude is formed and the centre of gravity of the individual tends toward displacement.

The first change may lead to others so that the transformation is continually augmented, but we shall not discuss this at present. I wish simply to show how from an ordinary state one may descend little by little to a complete metamorphosis; it is merely a question of degree.

It is impossible in studying the disorders of personality to determine precisely those that have their immediate cause in troubles of the general sensitivity, which, by a secondary action, call forth psychic states of a superior type (hallucinations, morbid sentiments and ideas). I shall limit myself to cases where these troubles seem preponderant.

In the *Annales médico-psychologiques* (⁸) will be found five cases which the author has grouped under the title: "An aberration of the physical personality." Without parleying over the title, which, perhaps, promises too much, we note an instance where, without external cause, an un-understood organic state, an alteration of cenesthesia, produced a sensation of bodily annihilation (*apis*, *arg.*, *ARS.*, *carbo v.*, *CROT. H.*, *graph.*, *hep.*, *ipéc.*, *nux v.*, *phos.*, *selen.*, *SEP.*). "In the midst of florid health, in possession of an exuberance of life and energy, a sensation of continuously augmenting weakness is felt, so that syncope is feared every minute, and collapse." Nevertheless, sensitivity is intact, the patient eats with appetite, and, if his wishes are opposed, reacts with extreme energy; he repeats that he has but a few hours to live (*acon.*, *agn.*, *apis*, *arg. n.*, *bell.*, *chel.*, *graph.*, *lach.*, *lyc.*, *medorr.*, *nit. ac.*, *nux v.*, *plat.*). Naturally, upon this entirely physical basis are superimposed delirious concepts: one says he is poisoned (*glon.*, *hyos.*, *plat.*, *mur.*); fear of being

poisoned (*bell.*, *hyos.*, *lach.*, *rhus*); another answers that a demon has got into his body (*helleborus*) and is "sucking the life out."

Let us consider here only the immediate consequences of the physical condition. We find the state of prostration already described and known to all of us, but in a form much more grave and more stable. The mental disorder has grown and become systematized. The individual no longer tends to be the same. It is a step toward dissolution of the ego, though the catastrophe is still distant.

This beginning of transformation, due to causes entirely physical, is found also in subjects who declare themselves surrounded by a veil or cloud (*cann. I.*, *cimic.*, *mag. mur.*), cut off from the external world, insensitive. Others (and these phenomena are explained naturally by troubles of the muscular sensitivity) exult in the lightness of their body (*op.*, *cann. I.*), feel themselves suspended in air (*asar.*, *bell.*, *camph.*, *hyper.*, *lach.*, *lact.*, *mosch.*, *nux mos.*, *op.*, *phos.*, *sep.*, *valer.*), imagine they can fly (*asar.*, *camph.*, *cann. I.*, *cœnanth.*, *op.*), or perchance they have a sensation of weight throughout the body (*nat. c.*, *thuja*), or in some members (*alumina*, *hyos.*, *op.*), or in a single limb, which seems heavy and much increased in volume. "A young epileptic sometimes sensed his body so extraordinarily heavy (*nat. c.*, *thuja*) that he could scarcely raise it. At other times he felt so light that he could hardly believe he touched the ground. Again, it seemed as though his body had become so enlarged (A) that it

(A) Delusions, etc., of enlargement: Acon., alum., bell., *cann. I.*, glon., nat. c., nux v., *op.*, *plat.*, sabad., stram., zinc.
body, parts of: Alum., hyos., op.

would be impossible to pass through a door.⁽⁹⁾ In this last illusion concerning the dimensions of the body, the patient imagines himself very much smaller (*acon.*, *carbo v.*, *tarent.*) or very much larger than in reality.

The local perversions of the general sensitivity, though restricted by nature, are no less psychologically important. Certain persons will say they have no teeth, no mouth, stomach, intestines, brain—inexplicable save by a suppression or alteration of the internal sensations existent in the normal state and contributory to the notion of the physical ego. To the same causes, complicated sometimes by cutaneous anesthesia, are attributable the cases where the patient believes that a limb or even the whole body is made of wood (*kali nitricum*), glass (*thuja*), stone, butter, etc.

A little more and he will say that he has no body (A), that he is dead. Esquirol mentions a

chin: Glon.

distances: Cann. I., nux mos.

eyes: Bell., op.

eyelashes: Cann. I.

head: Acon., cann. I., kali ars., zinc.

objects: Cann. I.

one leg is longer: Cann. I.

persons: Cann. I., caust.

scrotum: Sabad.

tall, is very: Op., pallad., plat., stram.

Kent's Repertory, q. v.

(A) Illusions, etc., as to the body-state (Kent's Repertory, q. v.).

Body adherent to woolen sack, night, while half awake: Coc. c.

black, as if it were: Sulf.

brittle, is: Thuja.

covered the whole earth: Cann. I.

woman who believed that the devil had carried away her body: the dermal surface was completely anesthetic. The physician, Baudelocque, in his latter days had no conscience of the existence of his body; he said that he no longer had a head (**B**), arms, etc.

delicate: Thuja.

divided: Cann. I.

erroneous ideas as to the state of his: SABAD.

greatness of, as to: *Cann. I., plat., staph.*

had come to pieces and could not get parts properly adjusted: *Bapt., phos.*

lighter than air: *Op.*

scattered about bed, tossed about to get pieces together:
Bapt., phos.

shrunk, like the dead: *Sabad.*

spotted brown, as if: Bell.

sweets, is made of: Merc.

thin, is: Thuja.

threefold, has a: Ars.

will putrefy: Bell.

would sink down between the thighs: Bell.

(**B**) **Arms are bound to her body:** Cimic.

do not belong to her: Agar.

reach the clouds, when going to sleep: Pic. ac.

that she has three arms: Petrol.

Head belongs to another: Ther.

can lift it off: Ther.

cold breeze blows on: Petrol.

deceased acquaintances, of, without bodies, at night:
Nux v.

heavy, his own seemed too: Bry.

large, seems too: Acon.

large heads make grimaces, evening, on closing eyes:
Euphrasia.

monstrous, on distant wall of room: Cann. I.

pendulum, seems an inverted, oscillating: Cann. I.

sees friend's stick out of a bottle: Bell.

shaking the: Bell., cham.

thinks disease will break out of: Stram.

transparent and speckled brown: Bell.

Finally, the case reported by Foville is well known: "A soldier believed himself dead from a serious wound received at Austerlitz. When his health was enquired after he would say: 'You wish to know how Père Lambert is? He is dead; he was killed by a cannon-shot. What you see before you is not he, but a miserable machine made in his likeness. You should ask them to make another.' In speaking of himself he never said 'I' but 'that.' The skin was anesthetic, and he frequently fell into a state of absolute insensitvity and immobility lasting for several days."

We enter here into the graver disorders, encountering for the first time "double personality"(C), or, more exactly, a discontinuity, a lack of fusion between two periods of the psychic life. The case cited above seems to me interpretable as follows: Before the accident the soldier, like everyone else, had his own organic conscience, the sense of his own body, of his physical personality. After the accident a profound change occurred in his nervous organization. Of the nature of this change only hypotheses, unfortunately, can be formed, the effects alone being known. Whatever it be, the result is the evolvment of a second organic conscience (egoscience), viz., that of a "miserable machine." Betwixt this and the older egoscience no fusion has occurred. The sense of identity is lacking because, for organic as well as

(C) Divided into two parts: *Bapt.*, cann. I., petrol., puls., sil., stram., thuja.

or cut in two: Plat.

and could not tell of which part he had possession on waking: Thuja.

Double, of being: *Anac.*, bapt., cann. I., glon., lil. tig., mosch., petrol., stram., secale, thuja.

sensations present themselves in a double form: Cann. I.

for other states, identity can result only from a slow, progressive and continued intercalation of the newer states. Here they have not entered the older ego as integral factors. Hence, the odd situation where the older ego appears as having been, as no longer existent, and where the present state seems a thing exterior and strange, as if not a reality. Note, finally, that in a state where the body-surface is no longer sensorial, and where sensations emanating from the organs are almost null, where superficial and deep sensitivity are extinguished, the organism no longer evolves the sentiments, images and ideas which conjoin it with the higher psychic life, but is reduced to those automatic acts which constitute the habitude or routine of life; it is, properly speaking, a "machine."

If it be asserted that the only personality existent in this case is the one remembered (the older), the assertion may, rigorously, be accepted, but we must recognize that it is of quite extraordinary nature, existing only in the past, and that instead of calling it a "person," it is more justly termed a "memory."

That which distinguishes these cases from those spoken of elsewhere is that here the aberration is entirely physical, proceeds from the body and pertains only to the body. The old soldier did not believe himself *another* individual (Napoleon, for example, who was also at Austerlitz). The case is quite free of intellectual elements.

It is also to perturbations of general sensitivity that it is necessary to attribute the illusions of patients or convalescents who think themselves double.(A) There is sometimes an illusion pure and

(A) Anac., bapt., cann. I., glon., lil. t., mosch., PETROL., STRAM., sec., thuja.

simple, without duplication; the morbid state is projected exteriorly, the individual alienates a portion of his physical personality. Such are the patients of whom Bouillaud speaks, who, having lost the sensitivity of half the body, imagine that by their side, in their bed, is another person (**B**) or even a cadaver. But, when the group of morbid organic sensations, instead of being alienated, is conjoined with the normal organic ego, coexists with it for some time without fusion, then, and during this period, the patient thinks he has two bodies. "A man convalescent from a fever believed himself composed of two individuals, one in the bed, the other walking about. Although he had no appetite he ate much, saying that he had two bodies to feed.⁽¹⁰⁾ Pariset, attacked in his youth by an epidemic typhoid, remained for several days in a state of collapse approximating death. One morning a more distinct sense of himself was awakened in him, like a resurrection; but, oddly enough, he then had two bodies, or at least thought so, and these bodies seemed to be lying in different beds. When his soul was in one of these bodies, he felt himself cured and enjoyed delicious repose. When in the other body he was in suffering, and said to himself: 'How is it that I feel so ill and weak in this bed, and so well in the other?' The thought occupied him for a long time, and this man, so acute in psychologic analysis, related to me several times the detailed history of the impressions then felt."⁽¹¹⁾

We have thus examined two cases of physical duplex personality. Although not far advanced in

(**B**) Anac., apis, BAPT., carbo v., nux v., op., petrol., PULS., rhus, sec., valer.

our study, the reader may see how dissimilar are these cases when carefully considered. The common term "double personality" is nothing but an abstraction. As soon as it is translated into concrete facts, into authentic observations, we find only diversity. *Each case, so to speak, demands individual interpretation.* A priori one may be content with this. If, as we maintain and shall endeavor to demonstrate, personality is an exceedingly complex thing, it is evident that its perturbations must be multiform. Each case gives a different decomposition. (A) Disease becomes a subtle instrument of analysis; it provides us with experience unattainable in any other way. The difficulty lies in a correct interpretation; yet even the errors made are but transitory, for the facts which the future provides will serve to verify or correct.

(A) "It is clear that these useless and misused names of diseases ought to have no influence on the practice of the true physician who knows that he has to judge of and cure diseases, not according to the similarity of the name of a single one of their symptoms, but according to the totality of the signs of the individual state of each particulate patient whose affection it is his duty carefully to investigate but never to give a hypothetical guess at it."—Note to § 81 *Organon*.

"This individualizing examination of a case of disease for which I shall give in this place only general directions of which the practitioner will bear in mind only what is applicable for each individual case demands of the physician nothing but freedom from prejudice, sound sense, attention in observing and fidelity in tracing the picture of the disease."—*Organon* § 83.

"When the totality of symptoms that specially marked and distinguished the case of disease, or in other words, when the picture of the disease, whatever be its kind, is once accurately sketched, etc."—*Organon* § 104.

3.

The role of physical personality as an element in the total personality is so important and has been so disregarded, often intentionally, that it cannot be emphasized too much. In this regard there is some profit to be got from certain rare cases where-with psychology has not occupied itself, and which furnish in support of our thesis a supplement of facts not more demonstrative but more striking, namely: double monsters (teratologic).

We must admit that the documents here are not numerous. Nature does not multiply monsters, and, of the 70 or 80 kinds classified by teratologists, the major portion is of no interest to us. Moreover, of the double monsters many do not attain adult age. The anatomist and the physiologist may gain something from them, but not the psychologist. Finally, reputable observations in this field have existed hardly a century. Anteriorly, the marvelous and the vague in such descriptions deprive them of all value.

The *ego*, it has often been asserted, is impenetrable; it forms in itself a complete entity, perfectly delimited; this is a proof of its essential unity. The assertion, as fact, is indisputable; but this impenetrability (homogeneousness) is only the subjective expression of that of the organism. It is because a determinate organism cannot be another organism that an ego cannot be another ego. But if, by a concourse of causes which we need not enumerate, two intrauterine human beings become partially fused together, the two heads, the essential organs of human individuality, remaining perfectly distinct,

we have as result that each organism is no longer completely limited in space and distinct from all others; there is an undivided part common to both; and if, as we maintain, the unity and complexity of the ego are merely subjective expressions of the unity and complexity of the organism, we should have in such a case a partial penetration, a portion of psychic life in common which is not "I" but "we." Each of the monstrous pair is something less than an individual; and this is fully confirmed by experience.

"Anatomically a double monster is always more than one unitary individual and less than two; sometimes approaching unity, sometimes duality. Likewise, physiologically, there is always more than one unitary life and less than two; and the double life may approach more closely either unity or duality.

"Limiting myself to phenomena of sensitivity and volition, a monster composed of two individuals, nearly complete and united at only one point of their body, will be double morally as well as physically. Each will possess its own sensitivity and volition, whose effects will extend over his own body alone. It may even happen that the conjoined twins, differing greatly in feature, form and physical constitution, will show equal differentiation in character and degree of intelligence. Simultaneously one may be gay, the other sad; one awake, the other sleeping; one may wish to move, the other to rest, and, from this conflict of two wills animating two bodies indissolubly joined, resultless movements may be produced which are neither repose nor motion. The two halves may quarrel, strike one another,

etc. Thus, their dual moral state, resulting from their physical quality, is shown by a hundred proofs; but, at the same time, since there is a tangent for the two bodies, common to both, a number of phenomena, less in number than the differentiating phenomena, show in them a commencement of unity.

"Impressions made in the region of union, chiefly at the middle point, are simultaneously perceived by the two brains and both may react alike. Let us add that, if peace between the twain be occasionally disturbed, there is commonly a harmony of sentiments and desires, a sympathy and reciprocal attachment, of whose extent most of the evidence at hand gives witness.

"Similar phenomena, and others, exist where, the union being closer, the two heads have but one body and two lower limbs. Anatomic analysis shows that in such beings each individual possesses his own half of the unitary body and one of the two legs. Observation of physiologic and psychologic phenomena fully confirm this singular result. Impressions made along the axis of union will be received synchronously by the two heads; beyond, and at some distance from the axis, by one only, and, as with the sensations, so with the volitions. The right (unitary) brain will feel only by the right leg and act upon it alone; the left head upon the left leg, so that the gait will result from movements executed by two limbs belonging to two different individuals and coördinated by two distinct wills.

"Finally, in parasitic monsters, at the same time that the organization becomes almost unitary, all the vital acts, all the sensations, all volitional manifestations are carried on almost precisely as in

normal beings. The lesser of the two individuals, having become an accessory and inert part of the greater, has an influence exceedingly feeble, and limited to a very small number of functions.”⁽¹²⁾

To these general characteristics we shall add some details of the more celebrated cases.

There is abundant documentary material regarding Hélène and Judith, a female double monster, born in Szony (Hungary), 1701, and dying in Presbourg at the age of 22. They were placed almost back to back, joined in the gluteal region and a portion of the lumbar. The sexual organs were duplex exteriorly, but with one vulva placed between the four thighs; there were two intestines ending in a single anus. The two aortæ and the two inferior venæ cavæ were united at their ends, and thus established large and direct communication between the two hearts. Whence, there was a semi-community of life and function. “The sisters had neither the same temperament nor the same character. Hélène was larger, more attractive, lively, intelligent and amiable. Judith, attacked when six years old by a hemiplegia, remained smaller and of duller mentality. She was slightly distorted, and articulated with some difficulty. Nevertheless, like her sister, she spoke Hungarian, German, French and even some English and Italian. They had a tender affection for one another, although during childhood they would quarrel and even strike each other.

“The natural necessities were simultaneously felt, excepting urination. They had measles and small-pox together, and if other diseases attacked one, the twin had an access of malaise and great anxiety. Finally Judith was affected by a disease of the brain

and lungs. Hélène suffered for some days from a slight fever and then suddenly weakened, though her mind and speech were clear. After a short agony she succumbed, a victim not of her own disease, but of that of her sister. Both expired at the same moment."

As for the Siamese twins, Chang-Eng, born 1811, we know that they were conjoined from the umbilicus to the xiphoid process. After a description of their appearance, Geoffroy Saint-Hilaire adds: "The brothers showed in their functions (excepting respiration and pulse) a concordance, remarkable but not absolutely constant (as it has pleased some to report), and as Chang and Eng themselves said in answer to vague questioning. Doubtless, there is nothing more strange than the contrast between a physical duality almost complete and an absolute moral unity and there is nothing more contrary to sane theory. I have carefully made all possible observations, have gathered all information that might enlighten me as to the worth of an assertion so frequently reiterated, and I have found, comparing the mal-cognized principles of theory with the psychologicistic assertions whereof the unity of the Siamese twins has so long been the inexhaustible text, that it is to the first, as might have been expected, that the facts in the case yield support. The Siamese twins, created almost identical in type, inevitably subject during life to the influence of the same moral and physical environments, similar in organization and in education, became two beings whose functions, actions, words, even thoughts were almost invariably in harmony, evolved and executed in parallel. Their joys and sorrows were in com-

mon; the same desires were roused simultaneously in these twin souls; the phrase begun by one was often finished by the other. But these concordances demonstrate parity not unity. Normal twins often present analogous phenomena, and would doubtless offer others quite as remarkable, if during their entire lives they had seen the same objects, felt the same sensations, enjoyed the same pleasures, suffered the same sorrows."⁽¹³⁾ I will add, that by age and the effect of environment or circumstance differences of character become more and more accentuated, and that one of the later observers described one of the Siamese twins as morose and taciturn, the other as lively and gay.

As the subject-matter of this work is not a psychology of double monsters (since they are merely examples of deviations from physical personality), I shall cite further only the recent case of Milie and Christine, with whom the sensitivity of the lower limbs was in common; the two spinal cords must, therefore, have formed at the point of union an actual chiasma.

Civil and religious laws, for which the question is of interest under more than one title (civil state, marriage, right of succession, baptism, etc.), have not hesitated to recognize two persons where there were two distinct heads, and with reason, though in practice some embarrassing cases might be encountered. The cranium being in man the actual seat of personality, the place where synthesis is accomplished (we shall see later in descending the animal scale that this point becomes dubious), it represents the individual *in toto*. But if the question be discussed scientifically, it is impossible in the

case of double monsters to consider each individual as complete.

I shall not fatigue the reader with useless comment, since the facts speak for themselves. If he carefully examine what has been said, he will become convinced, even in the cases where the personalities are most distinct, that there is an interlacement of organs and functions, so that each individual can be himself only on condition of being more or less the other, and of being conscient thereof.

The ego then is not an entity, acting where and how it please, coercing organs to its pleasure, limiting its domain at will. On the contrary, it is so absolutely a resultant that its domain is strictly limited by the anatomic connections with the brain, and it represents, now the entire body minus some part, again a half of the body, and in parasitic monsters a territory so limited that it cannot sustain life, and hence aborts.

4.

To establish once again, and in another way, that the basis of individuation is the organism; that it is this without restriction whatsoever, either directly by the organic sensations or indirectly by emotional and intellectual states (whereof we shall speak later), let us examine the phenomenon of twins. Psychology has occupied itself as little with them as with double monsters, but the biologists furnish some curious data.

Recall that twins represent in the average birth rate about 1-70. Triplets (1-5000), or quadruplets (1-150,000), would unprofitably complicate our investigations. Recall, also, that there are two species

of twins; either each individual comes from a distinct ovum, in which case they are indifferently like or unlike in sex; or they are due to the development of two germinal spots in the same ovum, when they become enveloped in the same membrane and are invariably of the same sex. The latter case is the only one furnishing us two personalities strictly comparable.

Disregarding animals, let us turn attention to man and take up the problem in all its complexity. It is evident, since the moral and physical state of the parents is alike for the twins at the moment of procreation, that one cause of difference is thereby eliminated. Since their development has as point of departure the materials provided by a single ovum, it is extremely probable that there will be great resemblance in the physical constitution, and hence, according to our theory, in the mental make-up. We shall first consider the facts favoring our hypothesis, and examine later the objections and exceptions.

The perfect resemblance of certain twins is a matter of common observation. Since ancient times they have been in the employ of the comic poets and the romancers. But in these instances external similarities, form, build, feature, voice have been most emphasized. There are other similarities much more profound. Physicians have long remarked that most twins present an extraordinary conformity of tastes, aptitudes, faculties, even of destinies. Galton recently investigated the matter by writing to a number of cases, of which 80 replied, 36 with data in detail. His aim was entirely other than ours, for in investigating heredity he wished to determine by a new method the respective parts played by nature

and education, but, among his data are a number of facts from which we may considerably profit.⁽¹⁴⁾

He reports various anecdotes similar to many long current, *e. g.*, a sister taking two music lessons daily that the twin might be at liberty; the perplexities of a college gate-keeper, who, when a twin came to see his brother, could not tell which to let out, etc. Others show a resemblance persistent even in circumstances little favoring its continuance. "A. was returning from India. The ship was delayed several days. His twin brother B. had come home to receive him, and their aged mother became very nervous. One morning A. bobbed in saying, 'Well, mother, how are you?' She answered, 'No, B., that is a poor joke. Stop it. You don't know how nervous I am.' And it was some time before A. could convince her of his identity."

But that which touches upon the mental organization interests us more. "A point that evidences the extreme resemblance between certain twins," says Galton, "is the similitude in their associations of ideas. No less than eleven cases in thirty-five furnish proofs of this. The twins make the same remarks in the same circumstances, begin to sing the same song at the same moment, etc., or one begins a phrase and the other completes it. A friend who was an excellent observer thus describes the effect produced upon him by a pair of this sort whom he knew. 'Their teeth erupted at the same epoch; they learned to talk at the same period and in an equal space of time; they said the same things and seemed to be exactly one and the same person.' A most curious anecdote touching this similitude of ideas is that of a twin, A., who, being accidentally in a

Scotch town, bought a service of champagne glasses that had attracted his attention, in order to pleasantly surprise his brother. At the same time B., who was in England, bought a similar service of exactly the same model as a surprise for A. A number of anecdotes of the same sort are related of this pair."

The nature and evolution of physical and mental diseases afford us very demonstrative facts. If psychology be interested only in the latter, the others reveal a similitude in the intrinsic constitutions of the twin organisms which observation cannot declare merely external resemblances.

"I had under my care," says Trousseau, "twin brothers so extraordinarily alike that it was impossible to distinguish them unless standing side by side. This physical similarity went further, for there was a pathologic resemblance still more remarkable. One of them, sick in Paris with a rheumatic ophthalmia, said to me: 'My brother should at this moment be similarly affected.' And since I laughed at the remark, he showed me a few days later a letter from his twin in Vienna, saying: 'I have my ophthalmia. You ought to be having yours.' However singular this may appear, it is the exact truth, not told to me but seen by me, and I have noted other analogous cases in my practice." Galton gives several other examples, one of which we shall cite: A pair of twins perfectly alike, greatly attached to one another, were in the Government service. They lived together. One developed Bright's disease and died; the other died from the same disease within seven months.

Pages might be filled with analogous cases. In

the category of mental diseases it is the same; a few examples will suffice. Moreau (of Tours) observed twins, physically similar, who became insane. "Their dominant ideas were absolutely the same. Both believed themselves victims of imaginary persecutions.(A) The same foes had sworn their destruction and were employing the same means to attain their ends. Both had hallucinations of hearing. They never addressed a word to any one and with difficulty responded to questions. They were always kept separated and had no communication with each other. An extremely curious fact, observed a number of times by the ward-attendants and by myself, was this: Now and then, at irregular intervals of two, three or more months, without appreciable cause and quite as a spontaneous result of the disease, a marked change occurred in the brothers. Both, at the same period and often the same day, came out of their state of stupor and habitual prostration; they uttered the same complaints and came themselves to beg the physician to immediately give them their liberty. I have seen this somewhat strange fact happen even when they were several kilometres apart, the one at Bicêtre, the other on the St. Anne farm."

More recently the *Journal of Mental Science* published two observations of insanity in twins; where two sisters resembled each other greatly in features, manners, language and mental disposition, "so that nothing was easier than to mistake one for the other," and, though in different quarters in the asylum, and hence unable to see each other, they presented symptoms of mental alienation exactly alike.

(A) CHINA, cycl., DROS., hyos., kali br., stram.

We now need to consider certain objections to our hypothesis. There are twins of the same sex who are unlike, and although the data do not say in what proportion true twins (*i. e.*, from the same ovum) present these differences, a single case alone would be worth the trouble of discussion. We have elsewhere mentioned the numerous causes which, in each individual, from conception to death, tend to produce variations, *i. e.*, characteristics peculiar to him and differentiating him from every other. In this case, as we have said, a whole category of causes may be eliminated, *i. e.*, those directly issuing from the parents. But the fecundated ovum represents ancestral influences also—4, 12, 28, (8, 16) possible influences, as we ascend the family tree. We cannot know, save from experience, which of these prevail and to what degree. The fact is, that it is an identical ovum which here produces two individuals; but there is no proof that the cell material is equally divided quantitatively and qualitatively. The ova of all animals have not only the same anatomic composition, but chemical analysis reveals naught but infinitesimal difference; nevertheless, one ovum produces a sponge, the other ovum a man. It seems then that this apparent resemblance conceals profound differences, although they escape our most subtle means of investigation. Do they arise from the nature of molecular movements as some authors think? We may suppose all we please, provided this be understood: *The ovum is already a complex thing*; and the two individuals derived from it are not necessarily exactly alike. Our perplexity comes only from ignorance of the processes whereby the primitive elements are grouped to constitute each

individual, and the sequent psychic and physical differences. Some of Galton's correspondents mentioned the curious fact that certain twins were "complements of each other." "There is," wrote the mother of twins, "a sort of reciprocal change of expression betwixt the two, so that one often resembles his brother rather than himself." "A fact that impressed all my associates (the writer was a senior wrangler at Cambridge) is that my brother and I were complementary, so to speak, in the matter of tastes and disposition. He was contemplative, poetic, literary to a remarkable degree. I was practical, apt in mathematics and languages. Combined we should have made an all-around man." Here the mental and physical capital seems to have been divided, not by equality but by equivalency.

If the reader carefully considers how complex the psychic organization in man is; how, because of this complexity, it is improbable that two persons should be a repetition one of the other; and to what surprising degree twins resemble each other, he will be irresistibly led to the conclusion that a single well-authenticated fact of this sort proves more than ten exceptions, and that the moral resemblance is only the correlative of the physical. If, by an impossibility, two persons were so made that their two organisms were identical constitutionally, and their ancestral influences precisely alike; if, by a yet greater impossibility, both were subjected to the same moral and physical impressions at the same time, then the only difference betwixt them would be their location in space.

In ending this chapter, I feel somewhat ashamed of having heaped up so many data and proofs to

establish this truth so apparent to me: *As is the organism, so is the personality*. I should have much hesitated in so doing were it not too easy to show that the truth has rather been forgotten or malcognized than denied, and that, hitherto, it has been deemed sufficient to mention it almost invariably under the vague rubric of "influence of body upon mind."

The facts thus far studied cannot alone lead to a conclusion. They show that, reduced to its final elements, physical personality presupposes properties of living matter and their coördination; that even as the body is only the organized and coördinated total of its constituent elements, so psychic personality (egoscience) is only the organized and coördinated total of the same elements as psychic values (factors). It expresses their nature and arrangement, nothing more. The normal state, the teratologic cases, the similarity of twins afford us evidence. The aberrations of physical personality, or, as Bertrand ingeniously puts it⁽¹⁵⁾, "the hallucinations of the body-sense," afford a surfeit of proof. But, there are deviations of human personality due to other causes and produced by a more complicate mechanism, which we shall proceed to study.

CHAPTER II.

AFFECTIVE TROUBLES.

Let us be reminded, once for all (and this is applicable to the intellectual alterations), that we are continuing under another form the study of organic conditions. The desires, sentiments, passions that give to character its fundamental tone have their origins in the organism, are pre-determined by it. It is likewise with the highest intellectual manifestations. Nevertheless, since such psychic states play here the major role, we shall treat them as direct causes of changes in personality never forgetting, however, that these *causes* are, in their turn, *effects*.

Without pretence to an exact classification of affective manifestations (which we do not have to study in detail), we shall arrange them in three groups, wherein, as we progress, the psychologic complexity increases and the physiologic importance decreases. These are:

I. The tendencies allied to the conservation of the individual (nutrition, defence).

II. Tendencies having to do with the conservation of the species.

III. Finally, tendencies (the highest of all) which deal with the development of the intellect (moral, religious, æsthetic, scientific — ambition in all its forms, etc.).

If we trace the development of an individual we see that it is in this chronologic order that the sentiments or phenomena appear. It is even better ob-

served in the evolution of the human species. The inferior races, in whom education does not enter as a corrective of nature by introducing the accumulated result of centuries of achievement, seldom get beyond the conservation of the individual and the species, and exhibit a gross outline only of the phenomena of group III.

The affective states connected with nutrition are, during the first years of life, the sole element, so to speak, of the nascent personality. Thence are derived well-being and malaise, desires and aversions; it is the body-sense of which we have said so much, arrived at its highest psychic expression. From natural causes, too evident to need enumeration, and bringing about an almost exclusive domination of nutrition with the infant, he has not and can not have other than a personality almost wholly nutritional, *i. e.*, the most vague and lowest form of personality. The *ego*, for him who does not regard it as an entity, can be here only of a composition extremely simple.

As we depart from infancy, the preponderating role of nutrition diminishes, but it never loses its rights, for, of all the properties of the living being, it alone is fundamental. Upon its variations, also, are dependent grave alterations in personality. If it be diminished, the individual feels depressed, weakened, a *minus* change. If it be augmented, he feels stimulated, reinforced, a *plus* change. Of all the functions whose harmony, *inter se*, constitutes this fundamental property of life, the circulation seems to be the one whose brusque variations have most influence upon affective states, as evidenced by immediate reaction; but, let us leave conjectural details and pass to observation of facts.

In the states known as hypochondriasis, lypemania (λυπη—grief, trouble, depression), melancholia (in all its forms) we find alterations of personality of every degree, including complete metamorphosis. Physicians establish between these various morbid states clinical distinctions which are unimportant here. They may be grouped under a common description. There is a sense of fatigue, oppression, anxiety, prostration, sadness, lack of desire, permanent ennui. In the gravest cases the emotional sources are completely dried up. "The patients become insensitive to everything; they no longer have affection for their relatives or children, and even the death of those dearest, leaves them absolutely cold and indifferent. (A) They can no longer shed tears, and nothing moves them but their own sufferings." (1) As regards activity, we find: torpor, impossibility of acting or even willing, insurmountable lethargy lasting for hours; in short, the "*aboulia*" studied in all its forms when considering *Diseases of Volition*. As regards the external world, the patient, without being hallucinated, finds his relations entirely changed (*bar. m., plat.*). It seems as though his habitual sensations had lost their characteristics. "Everything about me," said one, "is still as formerly, yet some change must have occurred; things

(A) *Indifference to everything*: Acon., acet. ac., agar., ail., anac., arn., bell., bov., canth., caps., carbo v., croc., cyrip., dig., hydr., ign., lept., mer., mez., nux m., phos., sec., staph., sulf., zizia.

Indifference to loved ones: Acon., fluor. ac., merc., PHOS., SEP.; *toward others*, Sulf.; *to relations*, Fl. ac., bell., hep., nat. c., phos., plat., SEP.; *to her children*, kali i., nat. c., PHOS., SEP.

Kent's Repertory, q. v.

have still their old forms; I see them clearly and yet they are greatly changed." One of Esquirol's patients complained that his existence was incomplete; "each of my senses, each part of me is, as it were, separated from myself and produces for me no sensation; it seems as though I never reach the objects which I touch." This state, perhaps due to a cutaneous anesthesia, may so augment "that it seems to the patient as though the real world had vanished or were dead, and that there remained only an imaginary world in which he experiences anxiety at finding himself."⁽¹⁰⁾ Add to this syndrome physical phenomena: troubles of circulation, respiration, secretion. Emaciation may be considerable, with rapid diminution in weight during the period of depression; respiration and circulation are slowed and temperature falls.

Little by little these morbid states are corporealized, (B) become organized, and unite to form a false

(B) "Almost all the so-called mental and emotional diseases are nothing more than corporeal diseases in which the symptom of derangement of the mind and disposition peculiar to each of them is increased, whilst the corporeal symptoms decline (more or less rapidly), till at length it attains the most striking one-sidedness, almost as though it were a local disease in the invisible subtle organ of the mind or disposition.

"The cases are not rare in which a so-called corporeal disease that threatens to be fatal—a suppuration of the lungs or the deterioration of some other important viscus or some other disease of acute character, *e. g.*, in childbed, etc.—becomes transformed into insanity, into a kind of melancholia or into mania by a rapid increase of the psychic symptoms that were previously present, whereupon the corporeal symptoms lose all their danger; these latter improve almost to perfect health or rather they decrease to such a degree that their obscured presence can only be detected through the observation of a physician gifted with per-

concept, which, developed further by the psychophysiologic mechanism of association, becomes in turn a center of attraction toward which everything converges. One individual declares that his heart is petrified; another that his nerves are glowing coals, etc. These aberrations have innumerable forms and vary with the individual. In the extreme degree, the patient doubts or altogether denies his existence. A young man, whilst declaring himself dead for two years, thus expressed his perplexity: "I exist, but external to real, material life and in spite of myself, nothing having caused my decease. Everything is

severance and penetration. In this manner they become transformed into a one-sided and, as it were, a local disease, in which the symptom of the mental disturbance, which was at first but slight, increases so as to become the chief symptom, and in a great measure occupies the place of the other (corporeal) symptoms, whose intensity it subdues in a palliative manner, so that, in short, the affections of the grosser, corporeal organs become, as it were, transferred and conducted to the almost spiritual mental and emotional organs which the anatomist has never yet and never will reach with his scalpel.

"In these diseases we must be very careful to make ourselves acquainted with all of the phenomena, both those belonging to the corporeal symptoms, and also, and indeed particularly, those appertaining to the accurate apprehension of the precise character of the chief symptom of the peculiar and always predominating state of the mind and disposition, in order to discover, for the purpose of extinguishing the entire disease, among the remedies whose pure effects are known as homœopathic, medicinal, pathogenic forces—that is to say, a remedy which in its list of symptoms displays with the greatest possible similarity, not only the corporeal morbid symptoms present in the case of disease before us, but also especially this mental and emotional state.

"To this collection of symptoms belongs in the first place the accurate description of all the phenomena of the previous so-called corporeal disease before it degenerated into a one-sided increase of the psychic symptom, and became a disease of the mind and disposition."—*Organon* §§ 215, 216, 217, 218.

mechanical with me and is accomplished inconsciously." This contradictory situation, where the subject declares himself simultaneously alive and dead, is it not the logical, natural expression of a state where the old ego and the new life and death are in equilibration?

However, the psychologic interpretation of these cases is not dubious; we have organic perturbation, whose first result is the diminution of the faculty of sensing, and whose second result is its perversion. There is thus formed a group of organic and psychic states which tend to modify intimately, profoundly the constitution of the ego, for they act, not after the violent and superficial manner of sudden emotional disturbance, but slowly, quietly, with irresistible tenacity. At first this new mode of existence appears strange to the individual, quite foreign to his ego. Little by little from habit it makes its place, becomes integral, modifies the constitution, and if invasive in type, changes it entirely.

In seeing how the ego is decomposed, we comprehend how it is evolved. Doubtless, in most cases the alteration is partial only. The individual, though becoming another, both for himself and his acquaintances, conserves a portion of the true self. Complete transformation can actually occur only in rare cases, and let us note that when the patient declares himself changed, transformed, in spite of the negations or the smiles of his associates he is correct in the assertion. He could not feel otherwise, for his conscience (egoscience) is nothing but a translation, an interpretation of his organic state. Subjectively, he is not the plaything of an illusion; he is what he must, should be. It is, on the contrary, the ancient hypothesis, inconscient, unavowed, of an *independent*

ego existing for itself as an unalterable entity, that instinctively leads to the belief in the change as an exterior phenomenon, an unusual or ludicrous garb in which the personality becomes clothed, whilst actually the change is internal and presupposes acquisitions and losses in the substance itself of the ego.

The counterpart of these partial alterations of the ego is found in cases where there is exaltation, amplification, and an exaggeration of the normal tonus. Examples are found in the beginning of general paralysis, in certain cases of mania, in the excitation-period of circular insanity. It is, in its entirety, the inverse of the preceding syndrome; there is a sense of moral and physical well-being, of superabundant force, of exuberant activity which spends itself in discourses, projects, enterprises, in incessant and aimless travels. Correspondent to the over-excitation of psychic life is the overactivity of organic functions. Nutrition augments, often in an extreme manner, respiration and circulation are accelerated, the sexual function is exalted; and, despite an enormous expenditure of force, the individual feels no fatigue. Then these states group, unite, and finally transform, in great part, the ego. One individual feels strong as Hercules, is able to lift great weights, procreate thousands of infants, overtake a railroad train at full speed, etc. Another is a great scientist or poet or artist. Sometimes the transformation more nearly approaches complete metamorphosis, and, overwhelmed by the sense of his limitless powers, he calls himself pope, emperor, God." "The patient," as Griesinger justly remarks, "feeling himself somewhat possessed of pride, daring, gaiety; finding in himself an unusual license of determination; conscious of a superabundance of thought,

is led naturally to ideas of grandeur, elevation, wealth; to concepts of great moral and intellectual power alone capable of possessing to such degree liberty of thought and volition. This exaggerated idea of liberty and power must, however, have a *motif* (to borrow a musical term); there must be in the ego something correspondent; the ego becomes temporarily quite different, and the patient can express such changes only by saying that he is Napoleon, the Messiah, or other great personage."

We shall lose no time in demonstrating that this transformation of the ego, partial or complete, transitory or permanent, is of the same nature as in the preceding (hypochondriac) cases, and involves the same mechanism, with this difference, that here the ego is decomposed in the inverse sense, not by subtraction, but by addition, by excess.

These *plus* or *minus* alterations of personality, this metamorphosis of the ego wherein it is uplifted or debased, would be still more striking were they successively found in the same person. Such alteration is frequently noted in the so-called circular or double insanity, characterized essentially by successive periods of depression and excitation which follow in an unvarying order, with some lucid intervals, in certain patients. A curious fact may then be observed. To the personality which we may term primitive and fundamental, and of which fragments, truly quite altered, persist, there attach themselves in turn two new personalities, not only very distinct, but entirely opponent. Here the review of some cases becomes necessary.⁽¹⁾

A woman observed by Morel had, since the age of 14, been abandoned to a vicious life by her mother. "Subjected later to all the anxieties of shame and

misery, she had no other resource than entrance into a house of prostitution. A year later she was taken therefrom and placed in the convent of the Bon-Pasteur in Metz. She remained there two years, and the reaction, too pronounced, occurring in her sentiments caused an outbreak of religious mania followed by a period of extreme stupidity. It is then, when placed under medical care, that she passed through periods when she thought herself alternately prostitute and nun. In coming out of the period of stupidity, she set to work regularly and talked properly, but arranged her dress with a certain coquetry. This tendency then augmented, the eyes became brilliant, the glance lascivious; she danced and sang. Finally the obscenity of speech and her erotic manifestations became such that solitary confinement was necessary. She called herself Madame Poulmaire, and gave the most cynical details of her former prostitute life. After a period of depression she became quiet, timid, and her demeanor scrupulously decent. She dressed very ascetically and the voice took on a characteristic intonation. She spoke of the Bon-Pasteur in Metz and of her desire to return thither, called herself sister Marthe des Cinq-Plaies, Thérèse de Jésus, sister Marie de la Resurrection. She no longer spoke in the first person: Take *our* dress, she said to the sister. There is *our* handkerchief. She had no longer any personal property (according to the rules of Catholic convents). She beheld angels smiling at her, and had moments of ecstasy."(A)

(A) We have drawn enough from homœopathic materia medica to demonstrate the technical resources of the science in diseases of the personality—organic, affective, mental. Hereafter the

In another case reported by Krafft-Ebing, a neuro-pathic man of insane heredity, "during the depressive period was disgusted with the world, pre-occupied with the thought of approaching death and had the idea of entering the priesthood. During the maniac stage he is turbulent, studies furiously, no longer wishes to hear of theology and thinks only of practicing medicine."

One of Charenton's patients of a high degree of intellectuality and very ingenious, "changed her person, her condition, even her sex, from one day to another. Now princess of the royal blood and affianced to an emperor, now a daughter of the common people, to-day married and pregnant, to-morrow still virgin. Sometimes she thinks herself a man, and one day figured as an important prisoner of state and wrote verses on the subject."⁽¹⁸⁾ .

Finally, in the following case we find the complete formation of a second personality. "An inmate of the asylum of Vanves," says Billod, "about every 18 months allowed his beard to grow, announced himself as a stranger, a lieutenant of artillery by the name of Nabon, recently arrived from Africa to replace his brother. He said that before departing his brother had told him about the various persons he would meet, and he demanded and obtained the honor of an introduction to each. The patient then remained for several months in a state of pronounced exaltation, and his conduct conformed entirely to his new personality. After a time he announced the re-

reader may look up the remedies having the various indications, for we do not wish to overshadow here the psychologic element by the therapeutic. We are convinced that a firm grasp of the psychology of diseases of the personality will render the student a much better and more scientific prescriber.

turn of his brother to replace him, and said he must be in the village. Then he shaved, changed completely his habits and demeanor, and resumed his own name. But now he presented an aspect of pronounced melancholia, walked about alone slowly and silently, habitually reading the Imitation of Christ and the Fathers of the Church, and he remained in this mental state, lucid if you wish, but which I consider far from normal, until the return of Lieutenant Nabon."

The first two cases cited are, definitely, only an exaggeration, a considerable augmentation of what occurs in the normal condition. The ego in each of us is composed of contradictory tendencies: virtues and vices, modesty and pride, avarice and prodigality, desire for repose and need of action, and many others. Ordinarily these opponent tendencies are in equilibrium, or at least the predominant one is not without a counterweight. Here, because of organic conditions well enough determined, there is not only impossibility of equilibrium but one group of tendencies hypertrophies at the expense of atrophy in an antagonistic group; then a reaction takes place in an inverse sense, so that personality, instead of consisting of those average oscillations each of which represents a factor in human nature, passes invariably from one excess to another. Note also that these diseases of personality consist in a reduction to a more simple state, but we are not yet prepared to emphasize this point.

2

Nutrition being less a function than a fundamental property of everything alive, the tendencies and sen-

sations allied with it are extremely general in character. It is different with that which concerns the conservation of the species. This function, peculiar to a determinate part of the organism, expresses itself in sentiments of sharply defined character, and hence is well suited to a verification of our thesis; for, if personality is a composite, varying in accordance with its constituent elements, a change in the sexual instinct will change it, a perversion will pervert it, an interversion will intervert it, which is precisely what occurs.

Let us recall facts, well known, but from which, generally, the conclusions have not been drawn which they impose. At puberty a new group of sensations and, therefore, of sentiments and ideas, makes its appearance. This afflux of new psychic states, stable because their cause is stable, coördinate amongst themselves because their source remains fixed, tend to modify profoundly the constitution of the ego. The ego feels indecisive, troubled with a vague and latent malaise whose cause escapes him. Gradually these new elements of the moral life are assimilated by the ancient ego, enter into it, and transform it. The ego is changed; a partial alteration of personality has been accomplished, the result of which is the formation of a new type of character, the sexual. This development of an organ and of its functions with their retinue of instincts, images, sentiments and ideas has produced a differentiation in the neutral personality of child, has made it a male or female ego in the full sense of the phrase. Hitherto there had been but a contour, because of which, however, the change has been possible without sudden shock, without break between past and present, without complete alteration of personality.

If we now pass from normal development to the exceptions and the morbid cases, we find variations and metamorphoses of personality due to the state of the genital organs.

The effect of castration upon animals is well-known, and is no less marked in man. With some (historical) exceptions, eunuchs represent a deviation from the psychic type. "All that we know of them," says Maudsley, "corroborates the opinion that they are mostly treacherous, untruthful, cowardly, envious, malicious, barren of social and moral sentiments, and as mutilated in soul as in body." Whether this moral degradation results directly from castration, as certain writers affirm, or indirectly from their equivocal social situation, has little to do with our thesis; direct or indirect, the cause remains the same.

In hermaphrodites, experience verifies what might have been predicted *a priori*. With the appearance of one sex, some of them present the characteristics of the other; but, far from completing the two functions, they exhibit only incomplete organs, commonly deprived of any sexual role. Their moral character is now neutral, now masculine, now feminine. Numerous examples may be found in authors who have studied the subject.⁽¹⁹⁾ Sometimes the hermaphrodite, after having manifested a marked liking for women, is led, because of the descent of the testicles, to instincts entirely opposed. In a recent case observed by Dr. Magitot, a female hermaphrodite exhibited successively feminine and masculine desires, very pronounced. "In general the affective faculties and the moral disposition are influenced by the contrecoup of an abnormal conformation of the

organs. Nevertheless," adds Tardieu, "it is just to attribute much of this to the influence of habits and occupations imposed upon such individuals by the wrong committed upon their real sex. Some of them, educated, clothed, situated, sometimes married as females, conserve feminine thoughts, habitudes and manners. Such is the case of Maria Arsano, dying at 80 years, a man in reality, but in whom habitude had womanized the character."

I have no intention of reviewing here the perversions or aberrations of sexual instinct,⁽²⁰⁾ each of which inflicts its mark upon personality, vitiates it little or much, transiently or permanently.⁽⁹⁾ As end-result of these partial alterations, we have total transformation, the metamorphosis of the sex. There are many instances of this of which the following may serve as a type. Lallement relates the case of "a patient who thought himself a woman, and wrote letters to an imaginary lover. At autopsy there was found prostatic hypertrophy and changes in the ejaculatory ducts." It is probable, in many cases of this sort, that there is perversion or abolition of sexual sensations.

Exceptions are found which it is necessary to note. Several observations in detail (Leuret, *Fragments psychiques*, p. 114 et seq.), cite individuals who assume the gait, habits, voice, and, when possible, the clothing of their imagined sex without presenting any anatomic or physiologic anomalies of the sexual organs. In such instances the point of departure for the metamorphosis must be elsewhere. It can be only in the cerebro-spinal system. Note, in fact, that whatever has been said of the sexual organ as a constituent or modifier of personality must not

be taken as including the organ only as delimited by its anatomic conformation; its connections with the brain, where it is represented, must be also considered. Physiologists locate the genito-spinal reflex center in the lumbar cord. The path from this center to the brain is unknown, for Gall's theory of the cerebellum as the seat of physical love is not much in favor, despite some favoring observations of Budge and Lussana. Whatever the existent ignorance concerning this point, sexual impressions must have an encephalic reception, since they are *felt*, and there must be centers whence psychic incitations are transmitted to the sexual apparatus in order to set it into action. These neural elements, whatever be their nature, number and location, whether localized or disseminated, are the cerebral, and hence the psychic, representatives of the sexual organ; and since, in evolving a particulate conscient state they commonly involve others, there must be an association betwixt this psycho-physiologic group and a certain number of others. The conclusion to be drawn from the cases cited is, that there has been produced a cerebral disorder of unknown nature (a woman believes herself a man; a man believes himself a woman), whose resultant is a fixed and erroneous state of conscience. This fixed state, exclusively predominant, arouses natural associations almost automatic, which are its radiations (sentiments, gait, language, vesture of the imagined sex) and it tends to complete metamorphosis, a metamorphosis coming from above and not from below. We have here an example of what is called "the influence of mind upon body;" and we shall endeavor later to demonstrate that the ego, wherever most psychologists

have ratiocinated (we are not speaking of the *real* ego) is formed by an analogous procedure. These cases, moreover, belong to the intellectual deviations of personality, which we shall discuss in the next chapter.

Ere leaving the subject, I should not wish to pass unmentioned some facts difficult of interpretation, it is true, but not, nevertheless, to be seriously cited against us. I mean cases of "contrary sexuality," a question much investigated nowadays, and which it will suffice to recall in a few words. Certain patients observed by Westphal, Krafft-Ebing, Charcot, and Magnan, Servaës, Gock,⁽²¹⁾ etc., present a congenital inversion of the sexual instinct, whence results, despite a normal physical constitution, an instinctive and violent attraction for a person of the same sex with marked aversion to the other sex; or, briefly, "a woman is physically woman and psychically a man; a man is physically man but psychically a woman." These facts are in complete disharmony with the teachings of logic and experience. The physical and moral elements are contradictory. Considering this rigorously, those who consider the ego as entity might take advantage thereof and argue the facts as proof of the ego's independence, of its autonomous existence. It would be, nevertheless, a great illusion, for their argumentation would rest upon two extremely unsubstantial bases, viz., the rarity of the facts and the actual difficulty of explaining them. No one will deny that cases of contrary sexuality form an infinitesimal fraction in the totality of cases furnished by experience. By this rarity they are exceptions; by their nature, psychologic monstrosities; but, monstrosities are not miracles, and we need to know whence they came.

Several explanations might be offered which commonly signifies that no one is satisfactory. The reader shall be spared them. Psychology, like all other sciences, should be resigned to a provisional ignorance upon many points and be unafraid of avowing it. In this regard it differs from metaphysics, which undertakes to explain everything. The savants, who, from the proper viewpoint of medical science, have studied these strange beings, call them degenerates. That which provokes our curiosity is to know why the degenerescence took this form and not some other. It is probable that the enlightenment of the mystery is to be sought in the multiple elements of heredity, in the complicated play of male and female elements in combat; but this investigation may be left to intellects more clairvoyant and fortunate than mine. The question of genesis or cause disregarded, one can hardly refuse to admit a deviation of the cerebral mechanism, as in the cases of Leuret, and their analogues. At any rate, the influence of the sexual organs upon the nature and formation of character is so little contested that to insist further would be time wasted, and theoretic explanation of contrary sexuality would not advance us in our researches.

3.

The instincts, desires, tendencies, sentiments relative to the conservation of the individual and of the species have their well-determined material conditions; those of the first in the totality of organic life; those of the second in a particulate apparatus. But, when from the primitive and fundamental forms of the affective life we pass to those of secondary

formation, engendered later in the course of evolution (social, moral, intellectual, æsthetic tendencies, etc.), besides the impossibility of assigning them immediate organic bases (which forces us, in a measure, to guesswork), it is noted that they no longer have the same degree of generality. Excepting, perhaps, moral and social tendencies, none of them express the individual in his totality; they are partial; represent but a group in the totality of his tendencies. Also, no one of them alone has the power of metamorphosing the personality. As long as the habitude which we term the body-sense and that other habitude called memory do not enter into play, there can be no complete transformation. The individual may become otherwise; he does not become an other. Nevertheless, these variations, even if but partial, have their interest. They show the transition from the normal to the morbid state. In studying diseases of volition, we found in ordinary life the beginnings of the most grave morbid forms. Here, likewise, common observation shows how little cohesion and unity the normal ego possesses. Disregarding characters "all of one piece" (in the strict sense of the phrase, there are none such), we find in each one of us tendencies of every sort, all possible contrarieties, and among these contrarieties all possible nuances, and among the tendencies all possible combinations. The ego is not only a memory, a storehouse of souvenirs linked to the present, but also an ensemble of instincts, tendencies, desires, which are naught but its innate and acquired constitution entering into action. To employ phrases in vogue, we may say that memory is the static ego, and the group of tendencies the dynamic ego. If,

instead of being guided, unknowingly, by the concept of the ego as entity—a pre-judgment which education as well as the pretended testimony of our (theologic) conscience has inculcated—we consented to take it as it is, *viz.*, as a coördination of tendencies and psychic states whose immediate cause is to be sought in the coördination and consensus of the organism, we should no longer be surprised at the oscillations—inconstant in mobile characters, rare in those more stable—which, in a space of time, long, brief, or almost momentary, exhibit the individual in some new light. An organic state, some external influence reinforces a tendency; this becomes a center of attraction whither converge states and tendencies directly associated; then the associations approach; the center of gravity of the ego is displaced, and the personality has become an other. “Two souls,” said Goethe, “dwell within my breast.” Not two only! If the moralists, the poets, the novelists, the dramatists have shown us to satiety these two souls struggling in the same individual, common experience is yet richer, for it has shown several, each one excluding the others as soon as it comes under the limelight. It is less dramatic, but truer. “At different times our I presents different characters according to age, various duties of life, occurrences, momentary excitations of this or that mass of ideas which, at the time, represents the I, being more developed than others and occupying the foreground. ‘We are another and still the same.’ My I as physician, my I as scholar, my sensuous I, my moral I, etc.—that is, the groups of perceptions, instincts and directions of the will which are expressed by these words—can come into opposition with each other and repel each

other at different times. Not only must inconsistency and disorder of the understanding and will result, but also—on account of the continued limiting influence of the others—complete want of energy in each of these functions of the I would ensue, did not some of the more obscure or apparent fundamental directions return to all of these spheres.”⁽²²⁾ The orator, master of his word, who, when speaking, judges; the actor who watches himself; the psychologist, studying himself, are illustrations of this normal scission in the ego.

Between these momentary and partial transformations, whose commonness conceals their importance as psychologic documents, and the grave states whereof we shall speak, there exist intermediate variations, more stable, more mobile, or both. The dipsomaniac, for example, leads two alternating lives; in one he is sober, orderly, industrious; in the other everything is sacrificed to his passion and he is improvident, inconscient, debauched. Does it not seem here as if there were two individuals, incomplete and antagonistic, grafted upon a common trunk? Likewise for those subject to irresistible impulses; who tell us that some strange force compels them against their will. Recall, also, those transformations of character accompanying cutaneous anesthesia and noted by a number of alienists. One of the most curious cases was observed by Renaudin. A young man whose conduct had always been exemplary yielded suddenly to the worst tendencies. In his mental state no sign of alienation could be found, but it was observed that his whole epiderm had become absolutely insensitive. The anesthesia was intermittent in type. “When it ceased his dis-

position changed entirely; he was docile, affectionate, understood his unfortunate situation. When it appeared the worst tendencies became irresistible and we had evidence that they might lead to murder." Maudsley reports analogous cases concerning which he says: "This special alteration of dermal sensitivity is full of instruction as to the profound and general affections of sensitivity; the perversion of the nervous system manifesting itself by perversion of loves and hates, by incapacity (in children) for joining in the games and occupations of other children, and by the impossibility of modifying their character. They cannot feel impressions naturally, cannot adapt themselves to surrounding conditions, with which they are in disharmony, and the perverted affections of the ego are translated into acts of destructive type. The insensitivity of the skin is the exterior, visible sign of a correspondent inner and invisible defect, as is found in idiocy."(")

We return, invariably, fatalistically to the organism; but this review of facts of all sorts, possibly appearing monotonous, shows us, nevertheless, variations of personality in all aspects. Since there are no two identical cases, each offers a particulate decomposition of the ego. Those last cited show transformations of character without any lesion of memory. As we advance in our review of facts, a conclusion develops spontaneously, as it were, *viz.*, personality is the resultant of two fundamental factors; first, the physical constitution with those tendencies and sentiments which are its expression, and second, the memory.

If (as in the preceding citations) the first factor alone is modified, there results a momentary disas-

sociation followed by a partial change in the ego. If the modification be sufficiently profound so that the organic bases of memory undergo a sort of paralysis, remain incapable of revivification, then the disintegration of personality is complete, there is no longer a past and the present is another. Then a new ego forms, most often ignoring the old. We have examples of this so well-known that I shall name them; the American woman of Macnish, the case of Dr. Azam (Félida), the case of Dr. Dufay.⁽²⁴⁾ Because of their generality, these cases do not come under any particulate classification, and we have no reason for mentioning them here rather than elsewhere except to emphasize that the transition from one personality to another is always accompanied by a change of character, linked, indubitably, to the unknown organic change which dominates the whole situation. This change is well indicated and several times repeated by Dr. Azam, whose patient during one period is sombre, cold, reserved; during the other gay, expansive, lively, even turbulent. It is even more marked in the following observation, reported at length because of its instructiveness.⁽²⁵⁾

The subject is a young man, aet. 16, V. L., attacked with hystero-epilepsy, who lost completely the memory of a whole year of his existence and during this period changed character entirely.

Born of an unmarried girl given to notoriously loose life, father unknown, he began as soon as he could walk to wander about the streets and beg. Later he stole, was arrested and sent to the penitentiary colony of Saint-Urbain, where he did farm work. One day whilst occupied in a vineyard he

grasped a snake hidden in a bundle of vine clippings. He was greatly terrified, and on returning to the colony at night lost consciousness. These crises returned from time to time; the lower limbs weakened and finally became paralyzed, the mind remaining unaffected. He was transferred to the asylum at Bonneval. There it was reported: "The patient has a frank, sympathetic countenance, a mild disposition, and shows gratitude for the care taken of him. He tells the story of his life to the minutest detail, even his thefts, which he deplores and is ashamed of. He attributes his misfortune to abandonment and bad company, much regrets his past and declares that he will do better in the future." It was decided to teach him a trade suited to his infirmity. He knew how to read and could even write a little. Each morning he was brought to the workshop, put upon a bench, where he naturally assumed the classic tailor's posture, thanks to the position of his paralyzed, greatly atrophied and contracted legs. After two months V. knew how to sew well enough, worked industriously, and his progress was satisfactory.

At this time he was taken with an attack of hystero-epilepsy, which ended after 59 hours in a calm sleep. Then the old personality reappeared.

"On waking V. wished to rise. He demanded his clothes and succeeded in getting them on, though clumsily; then he took a few steps in the room; the paraplegia had disappeared. If the limbs wavered and illy sustained the body, it was due to the muscular atrophy. When clothed, V. asked to go with his fellows to the farm work. We soon saw that our patient believed himself at Saint-Urbain

and wished to take up his usual occupation. In fact, he had no recollection of his crisis and recognized no one, neither physicians and nurses, nor his dormitory companions. He would not admit having been paralyzed, and said people were poking fun at him. We thought of a transitory vesanic state, very supposable after a violent hysteric attack, but time went on and memory did not return. V. well recalls that he was sent to Saint-Urbain; he knows that "the other day" he was afraid of a snake, but sequent to this there is a lacuna, and he remembers nothing more. He has not even the sense of elapsed time.

"Naturally we thought of a simulation, a hysteric trick, and used all means to make V. contradict himself, but without success. Thus we led him, without telling whither, toward the tailor-shop, walking by his side, but taking care not to influence obviously his direction. He did not know the way, and arrived at the shop, seemed totally ignorant of the place and said he had never been there. A needle was given him and he was asked to sew, which he did like a novice. The garments on which he had, whilst paralyzed, done the rough work were shown him. He laughed, was visibly dubious, but at last agreed with our statements. After a month of experiment and observation we were convinced that V. remembered nothing."

One of the most interesting points in this case is the modification of character undergone, the return to his former life and hereditary antecedents. "He is no longer the same person, he has become quarrelsome and a glutton, answers roughly. He formerly did not care for wine and gave his ration to his com-

rades; now he steals theirs. When his previous thefts are recalled, and he is told not to begin again, he becomes arrogant: if he had stolen he had paid the penalty since they had imprisoned him. He was given work in the garden. One day he escaped, taking with him the baggage and sixty francs belonging to a ward-attendant, but was caught fifteen miles from Bonneval, just when, after having sold his clothes to buy others, he was about to board a train for Paris. His arrest was not easy; he struck and bit the guards sent after him; and, brought back to the asylum, became furious, shrieked, rolled about on the ground. He had to be celled."

Escaping later, after considerable wandering about, he was caught and put in Bicêtre, whence he got away and enlisted in the infantry of marine at Rochefort. Condemned for theft, he was, after a violent attack of hystero-epilepsy, put in the care of Bourru and Burot, who studied him with the greatest care. Aided by physical agents of transfer (steel, iron, magnetism, electricity) they obtained in their subject the following six states: (²⁶)

FIRST STATE.—*Right-sided hemiplegia and hemianesthesia*—the ordinary condition of the subject.

"V. is garrulous, violent, arrogant in physiognomy and demeanor; his language is correct, but rude; he addresses everyone familiarly (*tutoie tout le monde*), gives each a nickname. He smokes from morning to night, and torments everyone with his inopportune demands for tobacco, etc. Otherwise he is intelligent, keeps up with the news of the day, and expresses opinions extremely anti-religious and ultra-radical in politics. Incapable of discipline, he wishes to murder his superiors or anyone who de-

mands a mark of respect from him. His enunciation is faulty, so that almost nothing but the final syllables of words is comprehensible. He can read, but his vicious pronunciation makes his reading aloud unintelligible. He cannot write because of his paralyzed hand. His memory—very exact for the least details, present or recent (he recites whole columns of the newspaper)—is extremely limited as regards time. He cannot remember beyond his actual life at Rochefort and the latter part of his stay at Bicêtre in the service of Dr. Voisin. Nevertheless, he has conserved the memory of the second part of his residence at Bonneval when he was engaged in garden-work. Between Bonneval and Bicêtre is a great gap in memory. Furthermore, his birth, childhood, residence at Saint-Urbain, the tailor's trade he learned on coming to Bonneval, are totally foreign to him."

SECOND STATE.—*Left hemiplegia (face and limbs with hemianesthesia).*—This state is obtained by applying steel to the right arm.

"On waking V. finds himself at Bicêtre (Cannabis ward No. 11), Jan. 2, 1884; he is 21 years of age, and yesterday saw Dr. Voisin. He is reserved in demeanor, mild in countenance, correct and polite in language; is no longer familiar (*ne tutoie plus*) and addresses each of us as Monsieur. He smokes, but not to excess; has no opinions in politics or religion, such subjects, he says, not being suited to a person so ignorant. He is respectful and well-behaved; his speech is facile and the pronunciation remarkably clear. He reads correctly and writes well enough.

He is completely ignorant of all events after Jan.

2, 1884, does not know where he is nor recognize anyone about; never went to Rochefort, never heard of the infantry of marine nor of the Tonkin war.

"In recalling previous events he relates that, before entering Bicêtre, he was at Saint-Anne. Further than this, no memory of his former life remains."

THIRD STATE.—*Left hemiplegia (the limbs only) with general hemianesthesia.*—This state is obtained by applying a magnet to the right arm.

"The patient wakes at the asylum of Saint-Georges of Bourg in August, 1882; aet. 19. France is at war with Tunis, Grévy is president of the Republic, Leo XIII is pope. The characteristic affective faculties, language, physiognomy and tastes are similar to those of the *second state*. As for memory, it is limited to an anterior period. He comes from Chartres with his mother, and is sent to Mâcon to a large vineyard property where he is employed. Fallen ill several times, he was cared for at the Mâcon hospital and later at the Bourg asylum where he now is. All that precedes or follows this brief period in his life is totally foreign to him."

FOURTH STATE.—*Paraplegia.*—Obtained by applying the magnet to the nape.

"He is just come from visiting several persons at the Bonneval asylum. He is polite, timid, even sad; his enunciation is clear but his language incorrect, impersonal, childish. He has forgotten how to read or write; spells out the capital letters. The intelligence is extremely obtuse, memory confused, and he recalls nothing of the events or persons related to this epoch. He knows only two places, Bonneval, where he thinks he is, and Saint-Urbain, whence he came, and where, as he says, he was paralyzed and in bed.

All the precedent part of his life from his infancy up to the snake incident which caused his illness, all that followed the attack, and the spontaneous change of condition at Bonneval are entirely foreign to him. He does not recognize the place where he is, never saw it before. His ordinary occupation is tailoring, and he sews as if quite used to it."

FIFTH STATE.—*Neither paralysis nor anesthesia.*—Obtained by static electricity or by applying the magnet to the forehead.

"He regains consciousness at Saint-Urbain in 1877, aet. 14. Marshal Macmahon is president of the Republic, Pius IX is pope. Timid as a child, his physiognomy, language and attitude are in perfect accord. He can read very well and write fairly. He remembers his entire childhood, the mal-treatment he had at Luysant, etc.

"He recalls having been arrested and put in a house of correction. He is at the penitentiary colony directed by Pasquier. He learns to read at the school of Miss Breuille, teacher in Saint-Urbain. He is employed at farm work. His memory stops precisely at the accident with the viper, mention of which brings on a terrible crisis of hystero-epilepsy."

SIXTH STATE.—*Neither paralysis nor anesthesia.*—Obtained by the application of soft iron to the right thigh.

"He regains consciousness March 6, 1885, aet. 22; he recalls contemporaneous events and the persons in power, but Victor Hugo, the great poet and senator, is still living. We no longer have the timid child just mentioned, but a dignified young man, neither pusillanimous nor arrogant, in the infantry of marine. Language is correct, enunciation clear.

He reads very well and writes properly. His memory includes all his life excepting the single period when he was paraplegic at Saint-Urbain and Bonneval, and he has no recollection of ever being tailor nor does he know how to sew."

Here then are six different states of conscience whose totality embraces the whole life of the subject.

They were all obtained by physical agents, paralleling manifestations of sensitivity and motility, so that the experimenter by acting upon the somatic state was able to obtain at will this or that known state of conscience; a state complete for the epoch embraced, *i. e.*, with its limited memory of time, places, persons, acquired knowledge, automatic movements learned (writing, tailoring), together with the sentiments proper thereto, and their expression in language, gesture, physiognomy. The concordance is perfect.

It remained for us to make the complementary experiment, *i. e.*, act directly upon the state of conscience and verify whether the somatic state changed accordingly.

To act upon the psychic state we had no other means than suggestion in the somnambulistic condition. We gave, therefore, the following suggestion: "V. you are going to awake at Bicêtre in the Cannabis ward. V. obeyed. In rousing from his somnambulism, he believed that it was Jan. 2, 1884; the intelligence and affective faculties were exactly as described in the *second state*, and at the same time he was found hemiplegic and hemianesthetic on the left side. Strength as measured by the dynamometer; the hysterogenic zone—all were transformed as in the *second state*.

"In another suggestion he was ordered to awake at Bonneval in his tailor apprenticeship. The psychic state obtained was similar to that of the *fourth state*, and simultaneously appeared the paraplegia with contracture and insensitivity of the lower limbs."

Therefore, conclude Messrs. Bourru and Burot:

1. "In acting upon the somatic state by physical agents, the experimenter places the subject in a concordant state of conscience.

2. "In acting upon the psychic state, he causes the appearance of the concordant somatic state."

Our conscient personality — more precisely, the conscience which each of us has of his present state in connection with anterior states—can never be more than an insignificant portion of the total personality imbedded in us. In the normal state the connection between the two is sufficient and coherent. We are, for ourselves and for others, biographies without large lacunæ. But if in this inconscient (physiologic) substratum, whence everything is derived, large groups remain inactive, the ego can no longer appear to itself conformably with the actual historical data. From the pathologic to the normal state (or vice versa) there is only the difference of a *plus* or *minus*. Conscience only reveals to us at each instant our ego under a single aspect among several possible aspects.

4.

Although we have not yet studied the anomalies of personality in all their forms, it will not be out of place henceforth to draw some conclusions, at least partial and provisory, that the obscurity of the

subject may be diminished. I shall confine myself, moreover, to a single point—to cases of pseudo-personality reducible to a fixed idea (*idée fixe*), toward which converges the whole group of concordant ideas; all others (discordant) being eliminated, annihilated as it were. Of such are the individuals who believe themselves God, pope, emperor, and speak and act accordingly. The study of mental conditions of personality affords us many illustrations (*e. g.*, the hypnotized upon whom is imposed a personality or a role). Those which we already know suffice for an inquiry as to what we may learn from them.

At first view, these cases appear simple enough as regards the mechanism of their formation. The primal origin is obscure—why was such concept evolved and not some other? Oftenest we know nothing about the genesis, but, once engendered, the morbid concept grows and perfects itself through the automatism, pure and simple, of association. Hence my intention is not to insist upon this point, but to show that these pathologic cases make evident an illusion into which psychology founded only upon interior (subjective) observation has almost invariably fallen, and which may be formulated: the substitution for the real ego of an artificial ego much less complex.

To grasp the real personality, the concrete thing, not a substituent abstraction, it will not suffice to shut ourselves up in our conscience, eyes closed, forever interrogating; on the contrary, *we need to open wide our eyes and observe*. The child, the peasant, the millions traversing fields and streets who never heard of Fichte nor of Maine de Biran, who have never read dissertations upon the *ego* and the *non-*

ego nor even a line of psychologistics, each has his or her own distinct personality and every instant instinctively affirms it. From that forgotten epoch when their *ego* was constituted, *i. e.*, formed as a coherent group in the midst of more or less inimical events, this group has steadily maintained itself, though incessantly modified. Largely it is composed of states and actions almost automatic, constituting in each the sense of his own body and the routine of life, which serve as support to all the rest, but every alteration of which, however brief and partial, is immediately felt. A goodly portion also is composed of a totality of sensations, images, ideas, representing the average environment wherein one lives and moves, with the memories attached thereto. All this represents organized states solidly bound together, reciprocally generating and corporealizing one another. We verify the fact without searching the cause. All that which is new, novel, change in the state of the body or in environment, is unhesitatingly adopted, classified instinctively as either entering into the personality or as being foreign to it. It is not by judgment distinct and explicit that this operation is performed every instant, but by an unconscious logic much profounder than judgment. Were it necessary to characterize in a word this natural, spontaneous, real form of personality, I should call it *habitude*, and it can be naught else, since, as we affirm, it is only the expression of an organism. If the reader, instead of observing himself, would proceed objectively, *i. e.*, observe and interpret (with the aid of hints from his own conscience) the state of those who have never reflected upon their own personalities (*i. e.*, the vast majority

of the human race), he would cognize that the real personality is embodied, not in reflections, but in actions.

Let us now look at the (ancient) fictitious or artificial personality.

When the psychologist by interior observation endeavors, as he expresses it, to comprehend himself (*γνώθι σεαυτον*) he attempts the impossible.(A) At the moment when he sets himself to the task, whether confined to the present (which will advance him little), or whether extending his reflections toward the past, he affirms himself the same that he was a year or ten years ago, he utters laboriously, after the manner of a savant, what any peasant knows just as well as he. By interior observation, only fugacious phenomena may be apprehended, and I am not aware that anyone has responded to the extremely well-judged remark of Hume: "For my part, when I penetrate the most intimate recesses of what I call

(A) "Which, indeed, of the ontologic systems regarding the (undiscoverable) nature of the human soul promises to afford any aid to the teacher in the execution of his noble office? He might well lose himself in the interminable labyrinth of abstract speculations on the *ego* and the *non-ego*, on the essences of the soul, etc., etc., which extravagant self-conceit has in all ages wrung from the racked brains of hosts of sophists; but no advantage that will reward his pains will he draw from these transcendental subtleties. It has not been given to mortal man to reason *a priori* on the nature of his own soul.

The wise teacher is aware of this; he spares himself this fruitless trouble, and in aiming at as wide an acquaintance as possible with his subject-matter confines himself to the *a posteriori*; to that which the mind's own acts have revealed concerning itself; to *empiric* (experimental) *psychology*. More on this subject in this stage of being he cannot, more he need not know."—Hahnemann, *Speculative Systems of Medicine*, 1808.

'I,' I always collide with some particulate perception or other of cold, heat, light or darkness, of love or of hate, of pleasure or of pain. I never surprise my 'I' divested of perceptions; I observe nothing but perceptions. * * * If any one, after serious and unprejudiced reflection, thinks he has another idea of himself, I avow that the discussion betwixt us would be brief. All that I would accord him would be that perhaps he was right as well as myself, and that upon this point our natures differed entirely. It is possible that he might perceive some thing, simple and permanent, which he called 'himself,' but as for me, I am very certain of not possessing any principle of such nature."⁽²⁾ Since Hume's time it has been said: "By effort and resistance we sense ourselves as cause." (*Par l'effort et la résistance nous nous sentons cause.*) This is excellent, and almost all schools agree that it is in this that the *ego* is distinguished from the *non-ego*; but the sense of effort, nevertheless, remains only a simple state of conscience like the others, the sense of muscular energy extended to accomplish some act.

To seek by analysis the comprehension of a synthetic unit like personality, or, by an intuition of conscience lasting scarcely seconds, to grasp a complexus like the *ego*, is to propose a problem whose terms are contradictory. And, in fact, the psychologists have proceeded differently. They have considered the states of conscience as accessory, and the tie that binds them together as the essential, and it is this mysterious substratum which, under the names of unity, identity, continuity, has become the veritable *ego*. It is clear, nevertheless, that we have here nothing more than an abstraction or, more exactly,

a schema. In place of the real personality has been substituted the "idea of personality," which is quite another thing. This "idea of personality" resembles all general terms formed in the same way (sensitivity, will, etc.); but it no more resembles the real personality than the map of a city resembles the city itself. And, as in the cases of aberration of personality which led us to these remarks, a single idea has been substituted for a complexus, thus constituting an imaginary and diminished personality, so, for the psychologist, a schema of personality has been substituted for the concrete personality, and it is upon this schema that he reasons, induces, deduces and dogmatizes. It is clear that such result is obtained only *mutatis mutandi* and with many restrictions, which the reader will discover for himself. Other remarks might well be made in this connection, but I am not engaged here in the capacity of critic.

In resumé: To indulge in introspection is to take a false position which changes the nature of the "I;" it is the substitution of an abstract representation for a reality. The true "I" is that which thinks, feels, acts, without making a show of himself for himself; for by nature and by limitation it is a "subject," and to become an "object," there must be a reduction, an adaptation to mental optics, which metamorphoses and mutilates it.

Hitherto we have considered the question only negatively. To what positive hypothesis as to the nature of the personality are we led by morbid cases? And, let us cast aside at once the theory of a transcendental entity, irreconcilable with pathology and, moreover, explaining nothing.

Cast aside, also, the hypotheses which make the

ego a "bundle of sensations" or states of conscience, as has been often reiterated (after Hume). This is judging from appearance, taking a group of signs for a thing, or, more exactly, the effects for the cause. Further, if, as we hold, conscience (egoscience) be only an indicative phenomenon, it cannot be a constituent state.

We must go deeper into that consensus of the organism of which the conscient ego is only the psychologic expression. Is this theory solidier than the other two? Objectively and subjectively, the characteristic trait of personality is that continuity in time, that permanence which is called identity. This has been refused the organism for reasons too well known for repetition; but it is strange that it has not been seen that all the reasons given in support of a transcendental principle (soul) are applicable to the organism, and that all the reasons cited against the organism are applicable to a transcendental principle. The remark that each higher organism is a unit in its complexity is as old at least as the writings of Hippocrates; and, since Bichat, no one longer attributes this unity to a mysterious vital principle (soul). But, some persons make great hullabaloo of the whirlwind of energy, of the continuous molecular renovation which constitutes life, and ask: Where is the identity? In fact, however, everyone believes in this identity of the organism and verifies it. Identity is not immobility. If, as some savants think, life resides less in the chemical substance of protoplasm than in the movements wherewith the particles of this substance are animated, it (life) would be a "combination of movements" or a "form of movement," and

this continued molecular renovation would itself be subordinate to conditions more profound. Without further insistence, it is evident to every unprejudiced mind that the organism has its identity. And what simpler, more natural theory than that of beholding in the conscient or psychic identity the inner manifestation of the external or physical identity resident in the organism?

"If I am told that not a single particle in my body is the same as it was thirty years ago, that its form since has been entirely changed, that consequently it is absurd to speak of its identity, and that it is absolutely necessary to suppose it inhabited by an immaterial entity which maintains the personal identity in the midst of perpetual change and structural peril, I shall reply: Others than myself have known me from infancy to my present age who have not the conscient certitude of my identity possessed by myself, and yet are quite as certain of it as I am, even if they held me to be the greatest liar in the world and believed not a word of my subjective testimony: they are also equally convinced of the personal identity of their dogs and horses whose subjective testimony is null. Finally, admitting within myself an immaterial substance, it becomes necessary to admit that it has undergone so many changes that I am not sure there remains the least portion of what was there thirty years ago; hence, with the best intent, I do not see what need there is of, nor what good is derived from, the supposed entity, apparently so superfluous."

Again, it is upon this physical basis of the organism that, according to our thesis, what is termed the "unity of the ego" rests, *i. e.*, that solidarity which binds together the states of conscience.

The ego-unity is that of a complexus, and it is only by a metaphysical illusion that the ideal, imaginary unity of a geometric point is attributed to it. It consists, not in the act of an "essence" pretendedly simple, but in a coördination of the nervous centers which themselves represent a coördination of the functions of the organism. It is true that this, also, is hypothetical, but at least it has no supernatural character.

Let us take man in the fetal state before the nascent of any psychic life; lay aside those hereditary tendencies already inscribed in him somehow, and which will enter into play later. At an uncertain epoch, at least during the latter weeks, a sort of body-sense should have been evolved, consisting in a vague sentiment of well-being or malaise. However confused or vague we may suppose it, it implies certain modifications in the nervous centers, as much as their rudimentary state will permit. When sensations due to external causes (objective or not) are later added to these simple vital organic sensations, they also produce, necessarily, modifications in the nervous centers. But they do not begin the weaving; the web of the psychic life is already set, and this web is the general sensitivity, the vital sense, which, even supposing it extremely vague, forms definitely at this period of life almost the entire totality of conscience. The bond of union between states of conscience *inter se* permits a glimpse of its origin. The first sensation (supposing that we could exist isolatedly) does not arrive like an ærolith in the desert; it finds itself combined with others at the very beginning—with states which constitute the body-sense and which are naught else than the

psychic expression of the organism. Translated into physiologic terms, this means that the modifications of the nervous system, representing materially the sensations and desires which are sequent (primal elements of the higher psychic life), become added to anterior modifications, the material representatives of vital and organic sensations; that relations (*rapports*) are thereby established, even between these neural elements, so that from the beginning the complex unity of the ego has its conditions of existence, finding them in the general conscience of the organism, hitherto so disregarded and which, nevertheless, serves as support for all the rest. To summarize, then: it is upon the unity of the organism that all else rests; and when the psychic life, passing out of the embryonal stage, is formed, it may be compared to a rich tapestry where the web has vanished, here under a rather tenuous design, there under a heavy broidery in high relief. The psychologist given only to internal observation sees only the design and the embroidery, and is lost in conjectures as to what lies beneath; if he would consent to change his position or to look at the obverse, he would spare himself many useless inductions and know much more.

We might take up the same thesis in the form of a criticism of Hume. The ego is not, as he affirmed, a simple bundle of perceptions. Without invoking the aid of physiology, but holding to a simple ideologic analysis, we note here a grave omission: that of the relations (*rapports*) among the primitive states. Relationship is an element of vague nature, of difficult determination, since it does not exist of itself. It is, nevertheless, a something *plus*, a something other than the two states which limit it. One will

find in the *Principles of Psychology*, by Herbert Spencer, a profound study, too little known, of these elements of the psychic life, with theories as to their material conditions. And recently, W. James has taken up the question.⁽²⁸⁾ He compares the course of conscience, with its varying flux, to the progress of a bird successively flying and perching. The moments of repose are occupied by sensations and images relatively stable; the places passed in flight are represented by the ideas of relationship (*rapport*) between the points of repose; these latter (the transitive portions, the *relativities*) are almost invariably forgotten. It seems to us that this is another form of our thesis, that of the continuity of psychic phenomena due to a hidden profound substratum to be sought for in the organism. In truth, that would be a most precarious personality which had no other basis than the conscience, and this hypothesis is found defective when confronted with the simplest facts, for example, the explanation why, after six or eight hours of profound sleep, I re-find myself without hesitation. To put the essence of our personality into a mode of existence (consciousness) which vanishes during at least a third of our existence is a singular solution.

We hold here, then, as we have done elsewhere for the memory, that individuality *per se*, as existent in fact, in the nature of things, must not be confounded with individuality *pro se* as a result of conscience (personality). The organic memory is the basis of all the highest forms of memory, which are only its perfecting. The organic individuality is the fundament of all the highest forms of personality, which are only its perfecting. I repeat: for the personality,

as for the memory, conscience completes and perfects but does not constitute it.

Although, in order not to extend these considerations, already too lengthy, I have rigorously abstained from all digression, criticism of opponent doctrines, exposition of points in detail, I shall, nevertheless, indicate, in passing, a question which naturally arises. There has been much discussion whether the consciousness of our personal identity rests upon the memory or *vice versa*. One says, "It is evident that without memory I should be only a 'present,' incessantly renewed—which would exclude the feeblest possibility of an identity." The other says, "It is evident that without a sense of identity binding them together and impressing my mark upon them, my remembrances would no longer be mine, but phenomena foreign to me. Therefore, is it the memory that produces the sentiment of identity, or the sentiment of identity that makes memory?" I answer: It is neither one nor the other; both are *effects*, whose cause must be sought in the organism; on the one hand, objective identity is translated into the subjective state which we call the sentiment of personal identity, and, on the other hand, it is in the organism that the organic conditions of our memories are registered, and in it is the basis of our conscient memory. The sentiment of personal identity and the memory, then, in the psychologic sense, are *effects* of which neither is the cause of the other. Their common origin is in the organism in which identity and organic registration (*i. e.*, memory) are one and the same thing. We have collided here with one of those mal-posed questions with which the hypothesis of a conscience-entity abounds.

CHAPTER III.

MENTAL TROUBLES.

1.

In certain morbid states, the five classic senses universally admitted, undergo grave disturbance. Their functions are perverted or denaturalized. Do these "paresthesias" and "dysesthesias" play a role in alterations of the personality? Before examining this point, a preliminary question arises: What happens in the case of suppression of one or more senses? Is personality involved, altered, transformed? The reply, based upon experience, seems negative.

The total loss of a sense may be acquired or congenital. Let us consider the first. Disregarding the two secondary senses of taste and smell, and also that of touch in its divers forms (which approximates general sensitivity), we shall limit ourselves to hearing and sight. Acquired blindness and deafness are not infrequent; often enough they develop modifications of character, but, these changes do not involve the individual deeply; he remains the same. Congenital blindness and deaf-mutism attack personality more profoundly. Deaf-mutes, by birth, when left to their own resources and deprived of an artificial language, remain in a state of notorious intellectual inferiority. This has been sometimes exaggerated,⁽²⁹⁾ but is, nevertheless, indisputable, and it is due to causes too often discussed to demand repetition. The conscient personality falls below the normal average, but in these cases there is rather an arrest of development than an alteration.

As for those born blind, the intelligence observed in many of them is well-known, and there is no authority for attributing to them any diminution or alteration of personality. Odd as may seem to us their concept of the visible world, which they know only by hearsay, it does not seriously affect either the nature of personality nor their idea thereof.

If we take the most noted case of sensorial poverty, that of Laura Bridgman—a case minutely observed, and concerning which there are abundant data⁽³⁰⁾—we find a woman, deprived since the age of two years, of sight and hearing, with almost total loss of smell and taste; reduced to touch alone. Much, doubtless, should be attributed to the patient and intelligent education given her. However, her teachers were unable to create new senses, and touch had to suffice for everything. Yet she comes before us with her own individuality and well-marked character; “of a naturally pleasing personality, an almost invariable good humor, and a patience in learning equal to her ardor;” in short, as a person.

Neglecting the numberless details belonging to such cases, we may say in conclusion: the acquired or congenital deprivation of one or more senses develops no morbid state of personality. In the less favorable cases there is an arrest of development, rectifiable by education.

It is clear that for those who consider the ego as a composite, extremely complex (and this is our viewpoint), every change, addition or subtraction of its constituent elements affects little or much. But the purpose of our analysis is precisely the distinction among these elements of the essential from the accessory. The contribution of the external senses (with

the exception of touch) is not an essential factor. The senses determinate and circumscribe personality, but do not constitute it. If, in questions of observation and experiment, it were not hazardous to trust in pure logic, this conclusion might have been deduced *a priori*. Vision and hearing are preëminently objective; they reveal to us the exterior, not the interior. As for touch, a complex sense which many physiologists analyse into three or four senses, insomuch as it acquaints us with the properties of the external world and becomes an eye to the blind, it belongs in the group of vision and hearing; otherwise it is only a form of the sense we possess of our own body.

It may seem strange that the paresthesias and dysesthesias which we are about to consider, *i. e.*, simple sensory perturbations or alterations should disorganize the ego. Nevertheless, observation demonstrates this, and reflexion explains it. This work of destruction is not due to them alone; they are only the external phenomena of an internal deeper disorder involving the body-sense. They are adjutant, rather than efficient cause, as the facts will demonstrate.

Alteration of personality with sensory troubles and without notable hallucinations or loss of judgment are encountered in a certain number of morbid states. We shall select as type the neurosis studied by Krishaber under the name of "cerebro-cardiac neuropathy." It matters little whether the syndrome merits consideration as a distinct pathologic unity or not; that is for medical men to decide.⁽⁸¹⁾ The aim of our investigation is quite other.

Let us review the physiologic troubles, the imme-

diate effect of which is to produce a change in cenes-thesia (body-sense). First, troubles of the circulation, consisting especially of extreme irritability of the vascular system probably due to an excitation of the central nervous system, whence we have contraction of the smaller vessels, ischemia in certain regions, insufficient nutrition and exhaustion. Then, disorders of locomotion; confusion, constant sense of vertigo and intoxication, with titubation, failure of the limbs or a hesitant gait, involuntary impulsion to walk, "as if moved by a spring."

In passing from the interior to the exterior, we find the sense of touch forming a transition from the general sensitivity to the special senses. Some patients have the sentiment of being without weight or of extreme lightness. Many have lost the exact notion of resistance and do not cognize by touch alone the form of objects. They believe themselves "separated from the universe;" their body is, as it were, enveloped in insulating media.

"It seemed," says one of them, "as though there were an obscure atmosphere about my person. I saw, nevertheless, that it was full day. The word 'obscure' does not exactly render my thought; the German '*dumpf*,' which also means heavy, thick, not brilliant, expresses it better. This sensation was not only visual but cutaneous. The '*dumpf*' atmosphere enveloped me. I saw it, I felt it; it was a badly-conducting or insulating thing which shut me off from the outside world. I cannot tell you the profundity of this sensation; I seemed to be far removed from the world, and, mechanically, I said in a loud voice, 'I am far, far away.' I knew very well, however, the untruth of this, and I recalled distinctly

all that occurred, but, between the moment of my attack and the moment of recovery was an interim of immense duration, a distance as from the earth to the sun."

Vision is always altered. Not to speak of minor troubles (photophobia, amblyopia), some patients see double; to others, objects appear flat, and a man looks like a silhouette. With many, surrounding objects seem to diminish in size and fade into infinity.

Auditory troubles are of the same nature. The patient no longer hears his own voice; it seems to come from far off or to lose itself in space without reaching the ear of the interlocutor, whose replies are also difficultly heard. If we unite, in thought, all of these symptoms (accompanied by bodily pains, alterations of taste and smell), we behold, rising brusquely and in mass, a group of internal and external sensations, hall-marked with a new character, bound together by their simultaneity in time and more profoundly still by the morbid state which is their common source. We have here all the elements of a new ego, and sometimes it is born. "I have lost the consciousness of my being; I am no longer 'I.'" Such is the formula repeated in the majority of observations. Others go further, and at times believe themselves double. "One of the strangest ideas, which affects my mind in spite of myself," said an engineer, "is that of believing myself double. I sense an 'I' which thinks, and an 'I' which executes."

This process of formation has been too well studied by Taine for me to recommence: "One can find no better comparison," he says, "for the state of the patient than that of the larva in a cocoon, which,

retaining all the ideas and memories of the cocoon stage, suddenly becomes a butterfly with the senses and sensations of a butterfly. Betwixt the old and the new state; betwixt the first ego—that of the cocoon—and the second ego—that of the butterfly—there is a deep scission, a complete rupture. The new sensations find no antecedent series in which they may be placed; the patient can no longer interpret or make use of them; he recognizes them no more; they are for him foreign. Whence, two strange conclusions: the first says, "I exist not;" the second, ulterior, "I am another."

True, it is difficult for a healthy, well-balanced mind to represent to itself so extraordinary a mental state. Inadmissible for the skeptical observer on the outside, these conclusions are rigorously exact for the patient, who sees from within. For him only, this continual sense of vertigo and intoxication is like a permanent chaos where the state of equilibrium, of normal coördination, cannot establish itself, or, at least, endure.

If we now compare this alteration of personality *a sensibus laesis* with other forms more or less grave, we note that a new ego is not found in all cases. When it is formed, it disappears with the disappearance of the sensorial troubles. It never succeeds in entirely supplanting the normal ego; there is alternation betwixt the two; the elements of the old ego retain enough cohesion to gain at intervals the supremacy. Whence the illusion, which, strictly, is not an illusion for the patient, of believing himself double.

As to the psychologic mechanism whereby he believes himself double, I refer it to the memory. I

have previously endeavored to demonstrate that the real personality, with its enormous mass of subconscious and conscient states, converges in our mind into an image or fundamental tendency which we call the idea of our personality. This vague schema, which represents the real personality much as the general idea of man represents men or as the map of a town represents the town, suffices for the ordinary needs of our mental life. With our patients, two images or schemas must exist and succeed themselves in their conscience, accordingly as the physiologic state renders the old or the new personality predominant. But, in the transition from one to the other, however brusque it be, there is a certain continuity. These two states of conscience have not, one an absolute beginning, the other an absolute ending, and betwixt the twain a hiatus, a vacuum. Like all states of conscience they have a duration, they occupy a space of time, and the termination of one touches the initiation of the other. Further, they are dove-tailed, as it were, one upon the other. When one begins to exist, the other continues but in diminution; there is a period of conscience when they are reciprocally intercalated. In our opinion, it is during this period of transition or passage, and whenever it occurs, that the patient thinks himself double.

Note, finally, that the sensory troubles are only the result of a deeper trouble evolving in the organism, and that, consequently, here again the body-sense plays the chief role in the pathology of personality.

One can now comprehend how the suppression, congenital or acquired, of one or more senses leaves

the person intact fundamentally, whilst transient and apparently less grave perversions transform him.

Physiologically, in the first instance we have a number of neural elements condemned to functional inertia, either congenital or acquired; the personality is like an orchestra, small or diminished in numbers, but, what is left suffices. In the second instance, all the neural elements serving the affected external senses—the muscular sensibility, the organic and visceral sensibility, have undergone unusual modification or change; it is like an orchestra in which most of the instruments have suddenly altered their pitch.

2.

A natural transition from perceptions to ideas takes place through hallucinations whose role in anomalies of the personality we are about to study. Let us recall, in beginning, some generalities as to the hallucinatory state. Four hypotheses have been formulated to explain it:⁽³²⁾

I. The peripheral or sensory theory, which locates the seat of hallucination in the organ of the sense.

II. The psychic theory, which localizes it in the center of ideation.

III. The mixed or psycho-sensory theory.

IV. The theory which attributes the hallucination to the perceptive centers in the cortex.

Observation teaches us that hallucinations affect now one sense, now several; that they extend most often to both sides of the body, less frequently to one (indifferently the right or left). More rarely they are bilateral but with each side presenting a differ-

ent character; one ear is filled with threats, menaces, bad council; the other is comforted by kind words; one eye perceives only sad and repulsive objects, the other beholds gardens of flowers. These last cases, simultaneously bilateral and opposed in nature, are the more interesting for us.

Fortunately in this enormous territory we have to explore but a very small corner. Let us delimit our subject. In the normal state the sensing and thinking individual is adapted to his environment. Between the group of internal states and relations which constitute the mind, and the group of external states and relations constituting the outside world, there is, as Herbert Spencer shows in detail, a correspondence. With the hallucinated, this correspondence is destroyed; whence his false judgments, absurd actions, *i. e.*, not adapted to the reality. However, all that constitutes a disease of the reason, not of the personality. The ego has certainly undergone a degeneration, but as long as the consensus which constitutes it has not been lost nor cleft in twain nor partially separated from itself (as we shall see later), there is no disease proper of personality; the troubles are secondary and superficial. For this reason, the great majority of cases of hallucination are eliminated, as far as we are concerned.

We need not, either, occupy ourselves with the patients, sufficiently numerous, who change the personality of others; who take their physicians and nurses for their relatives, or their relatives for imaginary personages in rapport with their delirium.⁽³⁸⁾

These eliminations made, the cases for study are fairly few, since they are reduced to alterations of personality in which the hallucination is the base.

Almost always it is limited to an *alienation* (in the etymologic sense) of certain states of conscience which the ego does not consider as its own, which it regards objectively, which it removes outside of itself, and to which it finally attributes an individual existence independent of its own.

As for the sense of hearing, the history of religious insanity furnishes numerous examples. I shall cite the simplest, those in which the hallucinatory state was active only at the beginning. A woman was persecuted by an inner voice "which she heard in her ear, and which opposed everything she desired. The voice always wished evil whilst the patient desired good. It sometimes cried to her, though inaudible exteriorly, 'Take your knife and kill yourself.'" Another, a hysteric, at first had thoughts and uttered words which she had no intention of saying, and which she enunciated often in a voice different from her ordinary voice. This voice at first made only indifferent or rational remarks, later it took on a negating character. "Now, after thirteen years, the voice either merely repeats what the patient has said, or else comments upon, criticizes or ridicules her words. The tone of the voice when 'the spirit speaks' always differs slightly and sometimes entirely from the ordinary voice of the patient, and it is because of this that she believes in the reality of this 'spirit.' I myself have often observed similar facts."⁽³⁴⁾

As regards vision, alterations of this sort are less frequent. "A very intelligent man," say Wigan, "had the power of placing his double in front of him. He laughed much at this double, who also laughed. This for a long time was a subject of amusement for

him, but the final result was lamentable. He became gradually convinced that he was 'haunted by himself.' This other ego teased, tormented, mortified him unceasingly. To put an end to this miserable existence, he set his affairs in order, and not wishing to begin another year, shot himself through the mouth with a pistol on the 31st of December at midnight."

Finally, Ball has reported in the *Encephale* (1882, II.) the case of an American who, because of simultaneous hallucinations of hearing and sight, created in its entirety an imaginary personage. "Sequent to an insolation he remained unconscious for a month. Shortly after having regained his senses he heard a man's voice, distinctly articulated, which said to him, 'How are you?' The patient responded, and a short conversation ensued. The next day the same question was repeated. The patient looked about and saw no one. 'Who are you?' he asked. 'I am Mr. Gabbage,' answered the voice. Some days later the patient saw his interlocutor, who, since this period, has always presented himself with the same features and costume; he always sees him full face and bust only; a vigorous, well-proportioned man of about 36, with heavy beard, dark complexion, eyes large and black, with sharply defined brows; he always wears a hunting costume. The patient would like to know the profession, habits and residence of his friend, who, however, will not give other information than his name." After a while Gabbage becomes more and more tyrannical; he orders the patient to throw his newspaper, watch and chain into the fire; to care for a young woman and her child who were poisoned by Gabbage; finally, to

throw himself from the third-story window—whence he fell, a battered mass upon the pavement.

These facts show us the beginning of dissolution of the personality. We shall later cite others not having hallucination as base and which will lead to better comprehension of those just given. The coördination, more or less perfect, which in the normal state constitutes the ego, is partially affected. Of the group of states of conscience sensed as our own because they are evolved or experienced by us, there develops one, which, although it has its source in the organism, does not enter the consensus, remains apart, appears foreign. In the category of thought, it is the analogue of the irresistible impulse in the category of action; a partial coördination.⁽⁸⁵⁾

But why are these voices and visions which, in fact, emanate from the patient, not cognized as his by him? It is a very obscure question to which, however, I shall endeavor to find answer. There must be anatomic and physiologic causes, unfortunately not known, whose discovery would solve the problem. In this ignorance of causes we are confined to inspection of the superficies, the symptoms, the states of conscience, together with the signs which are their interpretation. Let us suppose, then, a state of conscience (with its organic conditions) which has a local character, *i. e.*, in the physical and psychic organization its irradiation is as feeble as possible. To express this by antithesis, let us consider a sudden, violent emotion; it resounds everywhere, shakes up the whole physical and mental life—it presents complete diffusion. Our case is its antipode. Organically and psychically, it has but rare and tenuous connections with the rest of the in-

dividual; it is on the outside, is a foreign body, takes the organism as host but does not participate in its life nor enter into the great web of cenesthesia which sustains and unifies all. It is a cerebral phenomenon almost without a basis, analogous to the ideas imposed by suggestion in hypnosis. What corroborates this attempt at explanation is, that the morbid state, if not dispersed by nature or medication, has a fatal tendency to evolve, to take on a *corpus* at the expense of the original personality which becomes dwarfed, corroded by a parasite. Nevertheless, in this case the parasite retains its original characteristics; it does not present a duplication of personality but an alienation.

This tentative explanation is offered only as hypothesis, since we are well-persuaded that our ignorance of the organic conditions of the phenomenon forbids exact proof. Moreover, it has seemed proper to anticipate what will be said later in regard to ideas, and which possibly may furnish new arguments in favor of this hypothesis.

We shall now discuss recent experiences concerning hallucinations, which, with other facts, have led certain authors to give an explanation so simple of the doubling of personality, that it is, so to speak, palpable. First, the functional independence of the hemispheres of the brain has been demonstrated, whence it is concluded that from their synergy results the equilibrium of mind; from their disharmony its various troubles, and, finally, the scission of the psychic individual. We have here two distinct problems, noted by several of the savants whom we shall cite, but which have been confounded by others.

A physician, well-known as psychologist, Sir Henry

Holland, was the first to study (1840) the brain as a duplex organ, and to hint that some mental aberrations might be due to a disordered action of the hemispheres, of which the one, in certain cases, seems to correct the perceptions and sentiments of the other. In 1844, Wigan went further; he declared that we had two brains instead of one, and that "the *corpus callosum*, far from being a bond of union, served as a wall of separation," and he affirmed more distinctly than his predecessor the duality of mind.⁽³⁶⁾ The progress of cerebral anatomy gave results even more positive; the inequality in weight of the hemispheres, the constant asymmetry, differences in cortical topography, etc. Broca's discovery of the seat of aphasia furnished a new argument of great value. It was supposed, also, that the left hemisphere was the principal seat of intelligence and will, whilst the right presided more especially over the nutritive life (Brown-Séquard). I shall cut short this historical sketch, which might become lengthy, to arrive at once at hallucinations. The existence of simultaneous hallucinations, sad on one side, gay on the other; at any rate, different, and even contradictory, attracted the attention of observers. There was something better than observation, *viz.*, experiment. Hypnotism furnished the means. Let us note that the hypnotized subject may run through three phases: (1) the *lethargic*, characterized by neuromuscular excitability; (2) *cataleptic*, produced by raising the eyelids; (3) *somnambulic*, caused by pressure on the vertex. If, during the cataleptic stage, the right eyelid be lowered, the left brain is acted upon, thus determining a lethargic state of the right side of the body only. The subject is thus

divided in twain; hemilethargic on the right side, hemicataleptic on the left, and here is what happens. The facts are taken from P. Richer's well-known work:

"I place upon a table a pitcher of water, a basin and some soap; as soon as the patient's attention is attracted to these objects or her hand touches one of them, with apparent spontaneity she pours water into the basin, takes the soap and carefully washes the hands. If then one eyelid, the right, for example, be depressed, the whole right side becomes lethargic, the right hand ceases to move, but the left, none the less, continues the motion. On raising the eyelid, both hands begin action as before. The same phenomenon is equally well observed on the left side. If the work-box that holds her crocheting be placed in the patient's hands, she opens it, takes her work, and crochets with remarkable skill. * * * If one of her eyes be closed, the correspondent hand stops and the arm falls inert, but the other hand seeks to continue alone a labor now impossible; the mechanism continues on one side, but its movement has been modified in the endeavor to render it efficient."

The author reports several cases of the same sort, of which only the following will be cited, as it confirms the discovery of Broca: An open book is given to the subject, and her attention being directed to a line, she reads: "In the midst of the reading the occlusion of the right eye (and by the chiasma of the optic nerves, it is the left brain that is affected) stops her short in the middle of a phrase, of a word. She begins again as soon as the right eye is opened and completes the interrupted word or phrase. If, on the contrary, the left eye is closed, she continues her

reading, hesitating somewhat because she is amblyopic and achromatopsic in the right eye."(³⁷)

These experiments may be varied. A different attitude is given the limbs on the two sides of the body; the subject has then on one side an expression of command, on the other side laughs and throws kisses. The hallucinatory state may be induced on either the right or the left side alone. Finally, two persons approach each an ear of the patient; one describes the fine weather to the right ear and the right face smiles; the other at the left ear speaks of the rain, and the left side of the mouth droops. Or, to the right ear is suggested the hallucination of a country picnic, while in the left a barking dog is imitated; the right face expresses satisfaction, the left anxiety.(³⁸)

These experiments, which we summarize briefly, together with many other facts, logically lead to the conclusion: relative independence of the cerebral hemispheres, which does not exclude their normal coördination, but which, in certain pathologic cases, develops a complete dualism.

It has been desired to go yet further, and establish that this cerebral dualism suffices to explain all mental disharmony, from the simple hesitation in choosing one of the two things to the complete doubling of personality. If we simultaneously desire good and evil; if we have criminal impulses and a conscience that condemns them; if the fool at times recognizes his folly or the delirious has lucid intervals; if, finally, some individuals think themselves double, it is simply because the hemispheres are in disharmony; one is healthy, the other morbid; one state has its seat in the right hemisphere, its oppo-

ment state in the left; a sort of psychologic manicheism.

Griesinger, encountering this theory already timidly enunciated in his day, after having cited the facts which support it and the case of one of his patients who "felt himself insane on one side of the head only, the right," concludes in these terms: "As for us, we are not all disposed to accord these facts any great value."⁽⁹⁾ Have they gained any since? We doubt it. Firstly (since the theory rests upon numbers), are there not individuals who think themselves triple? I have found at least one such case. Esquirol says: "I met in an insane asylum a priest who, having too arduously applied his mind to the mystery of the Holy Trinity, had ended by seeing about him objects in threes. He believed himself three persons and wished to be served at table with three covers, three plates, three napkins."⁽¹⁰⁾ I think that sufficient investigation would bring other cases to light, but do not wish to avail myself of this particulate case of triplication, which to me seems susceptible of several interpretations. Against this theory we have better reasons in evidence, supported by everyday facts. The theory definitely rests upon the absolutely arbitrary supposition that the struggle is always between two states only. Experience contradicts this completely. To whom has it not happened to hesitate betwixt acting in one sense or in the contrary sense or in neither; to travel north or south or stay at home? It often occurs in life that three parts are offered for choice, each of which necessarily excludes the other two. Where is the third (cerebrally) located, since in this strange form the question has been put?

In some cases of congenital atrophy of the brain (apparently supported by authentic observations), individuals are seen reduced to a single cerebral hemisphere; their intellectual development is ordinary, and they otherwise resemble the rest of mankind.⁽⁴¹⁾ In them, according to the theory we are combatting, no internal disharmony could have developed. I think it valueless to carry this critique further, and shall only recall Griesinger's comment upon the verse in *Faust*: "Not only two souls but many dwell within us."

In truth this discussion would be idle did it not permit us to view our subject under a new aspect. These oppositions in the personality, this partial scission of the ego as found in the lucid moments of insanity and delirium,⁽⁴²⁾ in the self-disgust of the dipsomaniac even whilst drinking, are not oppositions in *space* (of one hemisphere to the other), but oppositions in *time*. They are, to employ a favorite expression of Lewes, the successive *attitudes* of the ego. Such hypothesis accounts for all that the other explains, and also for what it does not.

If we have thoroughly grasped the idea that personality is a consensus, we shall have no trouble in admitting that this mass of conscient, subconscient and inconscient states which constitutes it, is recapitulated at a given moment in a tendency or preponderant state which, for the individual himself and for others, is its momentary expression. Immediately this same mass of constituent elements assumes a contrary form which becomes dominant. Of such nature is the dipsomaniac who drinks and reviles himself. The state of conscience predominant at any one instant is, for the individual and for oth-

ers, his personality. It is a natural illusion, difficult to get away from, but an illusion resting upon a partial conscience. In reality there are only two successive attitudes, *i. e.*, a difference of grouping among the same elements, with predominance of some and with correspondent result. Even the body may in turn take two contrary attitudes without ceasing to be the same body.

It is clear that three or more states may succeed one another (apparently coexist) through the same mechanism. We are not bound to the numeral 2. Doubtless, we must recognize that this interior scission is more frequent between two contrary states than between three or more. This is due to certain conditions of conscience which we should recall.

Is there actual coexistence between two states of conscience, or a succession so rapid that it seems a simultaneity? This is a delicate problem not yet solved, but possibly will be some day by the psycho-physicians. Hamilton and others have declared that we may have six impressions simultaneously, but their conclusion is deduced from rough observations. The determination by exact physical measures of the duration of states of conscience has been a long step in advance. Wundt tried to go further and fix by experiment what he reasonably calls the "extent of conscience" (*Umfang des Bewusstseins*), *i. e.*, the maximum of states which it can contain at one time. His experiments have been confined to very simple impressions (the strokes of a pendulum regularly intercalated with the notes of a cymbal), and, consequently, are not at all applicable to the complex states with which we are dealing. He found that "twelve impressions are the maximum limit of con-

science for successive, relatively simple states.”⁽⁴⁸⁾ Experiment seems then to favor very rapid succession, equivalent to a coexistence. The two, three or four contrary states would, in reality, constitute a succession.

Further, we know, according to a comparison frequently employed, that the conscience has its “yellow spot” like the retina. Distinct vision is but a small portion of total vision, and distinct conscience is only a small part of the total conscience. We touch here the natural and incurable cause of that illusion in which the individual identifies himself with his actual state of conscience, particularly when it is intense; and, unfortunately, this illusion is much stronger for him than for others. We see also why coexistence (apparent) is much easier for two contrary states than for three or more. The fact is dependent upon the limitations of conscience. And, once again, it is an opposition, not in *space* but in *time*.

In review: The relative independence of the hemispheres is not dubitable. The trouble produced in the personality by their disharmony is not dubitable, but, to reduce everything to a simple division betwixt the left side and the right side is an hypothesis hitherto unsustained by any valid reason.

3.

A few words concerning memory. We have no reason to study it *per se*, for it is disseminated throughout our subject. Personality, in fact, is not a phenomenon but an evolution; not a momentary event but a history; not a present or a past, but both. Let us disregard what I call the objective, intel-

lectual memory: the perceptions, images, experiences and knowledge stored up in us. All this may disappear, partially or totally, resulting in diseases of memory of which we have elsewhere (Diseases of the Memory) numerous illustrations. Let us consider only the subjective memory, that of ourselves, of our physiologic life and the sensations or sentiments accompanying it. This distinction is entirely artificial, but permits a simpler treatment of the subject.

First, does such a memory exist? One might say that in the perfectly healthy individual the vital *tonus* is so constant that the consciousness he has of his body is but the incessant repetition of a "present state;" but this monotony, if it exist, by excluding the egoscience, would favor on the contrary the formation of an organic memory. In fact, there are always some changes, however slight, and since we are conscious only of differences, they are *felt*. Inasmuch as they are feeble and partial, the impression of uniformity persists, for actions incessantly repeated are represented in the nervous system in a manner much more stable than ephemeral changes. Their memory is, therefore, organized subconsciously, and hence more solidly. This is the fundament of our identity. These minute changes are "chronic," so to speak, and produce what is called insensible alteration. After ten years' absence an object, a monument, is seen the same, but it is not *felt* the same; it is not the faculty of perceiving which has changed but its accompaniment. Yet all this, in the healthy state, is but the simple metamorphosis inherent in everything that lives and evolves.

We have here then the vital habit of the individual represented by that other habit, organic memory.

Causes almost unknown then come into play, whereof we can establish only the subjective and objective effects. They produce a sudden and profound, or at least rapid and persistent transformation of the cenesthesia. What happens? Experience alone can tell, since our ignorance of causes reduces us to pure empiricism. In extreme cases (we shall ignore the others), the individual is changed. This metamorphosis is encountered in three chief forms in so far as memory is concerned:

I. The new personality, after a more or less lengthy transitional period, alone remains; the old personality is forgotten (Leuret's patient). Such a case is infrequent. It presupposes the former cenesthesia completely abolished, or, at least permanently inactive and incapable of revivification. If we note that the absolute transformation of personality, *i. e.*, the substitution of one personality for another—complete, unreserved, with no linking to the past—presupposes a transformation from top to bottom in the organism, we shall not wonder at the rarity of its occurrence. There is not, to my knowledge, any case where the second personality has not inherited some of the debris of the first, if only certain acquisitions become automatic (walking, speech, etc.).

II. More often, beneath the new body-sense which has organized and become the base of the actual ego, the old organic memory persists. From time to time it returns, enfeebled, to the conscience, like a childhood memory unrevivified by repetition. Probably this reappearance is caused by some substratum common to the two states, in which case the individual appears to himself to be another. The actual

state of conscience evokes a similar phenomenon but with other accompaniment. The two appear to be "mine," although they contradict each other. Such are the patients who find that everything remains the same, and yet all is changed.

III. Finally, there are the cases of alternation. Here there is little doubt that the two subjective memories, the organized expressions of the two cenesthesias, persist and in turn pass to the front. Each draws with it, sets into activity, a certain group of sentiments of physical and intellectual aptitudes not existent in the other. Each forms part of a distinct complexus. Dr. Azam's case furnishes an excellent illustration of alternation of two memories.

We can say nothing further without falling into repetition or heaping up hypotheses. Our ignorance of causes stops us short. The psychologist is here, like the physician, confronted with a disease made evident only through its symptoms. What physiologic influences change thus the general *tonus* of the organism and hence the cenesthesia and hence the memory? A state of the vascular system? Some inhibitory action? A functional stoppage? We know nothing about it. Until the question is settled, we shall remain on the surface. We have wished simply to show that memory, although in certain respects blending with personality, is not its deepest foundation. It is based upon the state of the body, conscient or inconscient, and depends upon it. Even in the normal state, the same physical situation has a tendency to develop the same mental condition. I have often noted at the moment of falling asleep that a dream of the preceding night, until then

totally forgotten, returned to memory very completely and distinctly. In traveling, when I leave one place to sleep in another, this reproduction sometimes occurs, but then the dream comes in fragments, disjointed, difficult to recompose. Is this the effect of the physical condition; similar in one case, slightly modified in the other? Though I have not seen this fact mentioned in any work on dreams, I doubt if it be peculiar to myself.

Moreover, we have other well-known and better demonstrative facts. In somnambulism, natural and induced, the events of the previous seance, forgotten when awake, return with the state of hypnosis. Recall the anecdote of the porter who, while drunk, lost a bundle; when sober he was unable to find it, so he got drunk again and recovered it. Is there not here a tendency to the formation of two memories, one normal, the other pathologic; expressions of two distinct states of the organism, and which are, as it were, embryonal forms of the extremes we have discussed?

4.

The role of ideas in the transformation of personality has already been indicated in passing. It remains for us to watch this new factor at work and to verify what it produces of itself and isolatedly. Among the numerous elements whose consensus forms the ego, there is hardly another better suited to a setting apart, to an artificial separation. On this point, however, a misunderstanding must be avoided. For the conscient individual, the idea of his personality may be either effect or cause; a resultant or an initial factor; a point of arrival or a

point of departure. In the healthy state it is always effect, resultant, point of arrival. In the morbid state the two extremes meet. In many of the examples previously given we have seen organic, affective, or sensory perturbations produce such vital exuberance or weakness that the individual declares himself God, king, giant, great man, or else he is a machine, a phantom, a corpse. Evidently these erroneous ideas are passably logical conclusions drawn from the inner transformation of the individual, the definite formula which includes and completes it. There are also entirely contrary cases, where the transformation of personality comes not from below but from above; where it does not end but begins in the brain, and where, consequently, the idea is not a conclusion but a premise. Doubtless it is rash to pretend that in many conditions where a false idea serves as point of departure for an alteration of the ego, there is not below it and before it some organic or affective perturbation. On the contrary, there always is such, even in the hypnotized, where personality is changed through suggestion. Betwixt the two forms of metamorphosis above mentioned, there is no distinct line of demarcation; the term "ideic metamorphosis of personality" is merely a *nomen a potiori*. Understanding this, let us examine this new aspect of the subject-matter, starting, as is our habit, with the normal state.

Nothing is more common or well-known than the transient confiscation of personality by an intense, fixed idea. As long as this idea occupies the conscience, we may say, without too great inexactitude, that it is the individual. The obstinate pursuit of a problem, invention—creation in all its forms—repre-

sents a mental state where the whole personality is drained for the profit of a single idea. The individual becomes, in common phrase, *distract*, *i. e.*, an automat. This is an abnormal state, an imbalance. The innumerable anecdotes current about inventors—rational or chimerical—verify this. Note, in passing, that each fixed idea is basically a fixed sentiment or passion. It is a desire, a love, a hate, an interest that sustains the idea and gives it its intensity, stability, tenacity. Ideas, whatever may be said, are invariably in bondage to passions, and they resemble masters who, always thinking themselves in command, are always obeying.

Whatever result be produced, this state is one of mental hypertrophy, and the public is correct when, designating the inventor and his work, it designates indifferently one by the other; the work is equivalent to the personality.

Hitherto we have not had alteration of personality but simple deviation from the normal type—schematic as it were—where, theoretically, the organic, affective and mental elements form a perfect consensus; hypertrophy at one point, atrophy at others by virtue of the law of compensation or organic balance. Let us now look at the morbid cases. Outside of the artificial alterations produced during hypnosis, it is difficult to find many cases where the incontestable point of departure is an idea. It has seemed to me possible to classify as alterations due to mental cause, the phenomena, formerly frequent, nowadays rare, of lycanthropy (lycomania) and zoanthropy (λύκος—wolf; ζων—animal; άνθρωπος—man) in all their forms. At least, in facts of this sort(4) [documentarily well-authenticated], the men-

tal weakness of the wolf-man is so great, so near idiocy, that one is tempted to consider it rather as a case of regression, a return to the form of beast-individuality. If we add, further, that these cases are complicated with visceral disorders, cutaneous and visual hallucinations, it is not easy to determine whether these be the effects of an idea or whether they generate the idea. We should not forget, however, that lycanthropy has sometimes been epidemic, *i. e.*, that it must have been initiated, at least among the imitators, by a fixed idea. Finally, this form of disease has disappeared with the belief in it, *i. e.*, since the idea that he is a wolf has no longer been able to implant itself in the brain of a man and cause him to act accordingly.

The only cases, perfectly distinct, of ideic transformation of personality are those already cited of men who think themselves women or women who believe themselves men—no sexual anomaly being present to justify the metamorphosis. The influence of an idea also appears initial or preponderant in the “possessed,” in the demoniacs. It often acts by contagion in the exorcists. To cite but one instance, Père Surin, so long implicated in the celebrated case of the Ursulines in Loudun, felt within himself two souls, sometimes even three, apparently.⁽⁴⁵⁾

Altogether, the transformations of personality due to an idea are not frequent, and this is a new proof of what we have reiterated to satiety: *personality is evolved from below*. It is in the highest nervous centres that it attains unity and becomes consciently affirmed; in them it is perfected. If, by a mechanism acting reversely, it develops from above downwards, it is superficial, precarious, transient.

The production of artificial personalities in the hypnotized furnishes excellent proof thereof. Ch. Richet has published abundant and precise observations on this point.⁽⁴⁶⁾ It will suffice to recall them in a few words. The hypnotized individual (commonly a woman) is made to believe that she is, in turn, an actress, a general, an archbishop, a nun, a sailor, a little girl, *etc.*, and plays the role with surprising exactness. Here the psychologic phenomena are perfectly distinct. In this state of induced somnambulism, the real personality is intact; the organic, affective and intellectual elements have undergone no marked alterations; all still remain potent. Some state, not thoroughly cognized, of the nervous centers; an arrest of function, hinders their translation into acts. By suggestion an idea is evoked, and immediately, by the mechanism of association, it rouses analogous states of conscience, and these only, and with them, always by association, the appropriate gestures, acts, words and sentiments. Thus there is formed a personality exterior to the real personality, a congeries of borrowings and of automatism. The experiment well shows what an idea can do when freed of impediment, but reduced also to its own forces, and no longer having in support and coöperation the totality of the individual.

In certain cases of incomplete hypnosis a dualism is produced. North, professor of physiology in Westminster Hospital, says, in speaking of the period when he was under the influence of the fixed gaze: "I was not unconscious but seemed to be double. It seemed that my interior ego was alive to all that happened, but did not endeavor to mix in with the acts of the exterior ego and control them. The re-

pugnance or the incapacity of the interior ego to direct the exterior ego seemed to augment in ratio with the prolongation of the seance."(⁴⁷)

Does the interior personality—the true one—permit itself to be totally suppressed? Can the real character of the individual be reduced to nothing, to the point of transformation into its contrary? It cannot be doubted; the persistent authority of the operator will attain this, after a resistance more or less prolonged. A woman, politically a fervid Bonapartist, was made to develop convictions extremely republican by Ch. Richet. Braid, after having hypnotized a teetotaler of irreproachably sober habits, told him several times that he was drunk. "The affirmation being corroborated by a sensation of staggering (produced by muscular suggestion), it was amusing to see him struggle between the induced idea and the conviction resulting from his ordinary life."(⁴⁸) There is nothing disquieting about these momentary transformations. As Richet justly remarks: "In these curious modifications, that which changes is merely the exterior form of being, the habits and manners in general, not the individuality, properly speaking. As to whether reiterated suggestions in suitable subjects would not at length produce a modification of character is a problem which experience alone can solve and which, moreover, does not enter into our subject-matter."

This is perhaps the place to mention the disappearance of personality which the mystics of all ages and countries have described as their own experience, often in very beautiful language.(⁴⁹) Without attaining "ecstasy," the pantheistic metaphysicians have also spoken of a state wherein the spirit beholds

itself as "a form of eternity," seems to itself beyond time and space, freed of all contingent modalities, united with infinity. This psychologic situation, though rare, must not be forgotten. To me it appears the absolute confiscation of mental activity by a single idea (positive for the mystics, negative for the empirics), but which, because of its high degree of abstraction, its lack of determination and of limit, contradicts and excludes every individualistic sentiment. If a single sensation, however common, be *perceived*, the illusion vanishes. This state is neither above nor below personality, but outside of and beyond it.

In review: the states of conscience called ideas are but secondary factors in the constitution of personality and in its alterations. The idea plays its role, but it is not preponderant. These results are in harmony with what psychology has long taught: ideas are objective in character. They cannot, then, express the individual as do his desires, sentiments, passions.

CHAPTER IV.

THE DISSOLUTION OF PERSONALITY.

In terminating our review of facts, there remains for discussion the alteration of personality in progressive dementia due to senility, general paralysis, or any other morbid form. If, in the normal state, personality is a psycho-physiologic coördination as perfect as possible, maintaining itself despite perpetual changes, transitory and partial incoördinations (sudden impulses, odd ideas, etc.), dementia, which is a progressive physical and mental dissolution, should betray itself by a continually increasing incoördination until the ego disappears in an absolute incoherence and there remain in the individual nothing but the purely vital, best-organized, lowest, simplest and consequently most stable coördinations, which, in turn, also disappear. Hence it is perhaps in these cases of irremediable dissolution that we encounter the only instances of double personality in the strict sense, *i. e.*, of coexisting personalities. Note, in fact, that as we progressed in this work we found successive personalities (cases of Azam, Dufay, Camuset); a new personality substituted for another forgotten or expelled or held to be exterior, foreign (case of Leuret, of the Austerlitz soldier); an inversion of the normal personality by unusual sensations, now resisted, now yielded to, and which led the patient sometimes and transitorily to believe himself double (case of Krishaber, etc.). But in the demented, the disorganization organizes itself; they

are double, believe themselves double, and act duplely. There is no doubt in their case. They have not conserved that trace of indecision which, in the numerous cases we have cited, demonstrates that the normal personality (or what is left of it) retains an ultimate energy which, after weeks or months, will assure its return. To the demented it seems as natural to be double as it is for us to be single. There is no skepticism about this on their part nor do they permit it in others. Their manner of being, as evolved for them by their conscience, appears so distinctly and evidently as to be beyond doubt or the supposition of a doubt. It is important to note this point, as it shows in these morbid forms of personality the spontaneity of affirmation and action that characterizes every natural state. Here are two cases of the sort:

D., an old soldier, later police sergeant, having been struck several times on the head, was attacked with a gradual enfeeblement of memory which put him in retirement. His mind becoming more and more clouded he came to believe himself double. He always uses the pronoun "we;" "we shall go; we have walked a great deal." He says he does this because there is another with him. At table he says: I am seated but not the "other." He begins to run about; when asked why, he answers that he would rather rest but the "other" forces him to run, though D. tries to hold him back by his coat. One day he started to strangle a child, saying that it was not he, but the "other." Finally, he tried to commit suicide in order to kill the "other," who, he believed, hid in the left side of his body; hence, he calls him the "left D.," and himself the "right D." This patient gradually became demented.⁽⁵⁰⁾

A case reported by Langlois marks a lower descent. "G. is imbecile, fussy, loquacious, with no hesitation of speech, paralysis of limbs or disorders of cutaneous sensibility. In spite of his loquacity, he utters only a few stereotyped phrases. He always speaks of himself in the third person, and receives us every morning by saying: G. is sick; he must be taken down to the dispensary. Sometimes he gets on his knees, gives himself some vigorous blows, then bursts into laughter, rubs his hands joyously, and cries: G. has been bad and got a licking. Again, he takes his shoe, strikes himself violently on the head, digs his nails into the flesh, tears his cheeks. These accessions of fury are sudden, and during the acts of mutilation his physiognomy expresses anger, succeeded by an air of satisfaction as soon as he ceases punishing the "other." When not over-excited by his imaginary resentments, we ask him: Where is G.? Here he is, he replies, striking his chest. We touch his head and ask him to whom it belongs. That, he says, is a pig's head. Why do you strike it so? Because the pig's head must be punished. But you just now struck G. No, G. was not bad to-day; it was the pig's head that needed a beating. For several months we renewed the same questioning and invariably got the same answers. Most of the time it is G. who is discontent, but sometimes the contrary takes place, and then it is not the head that gets the punishment."⁽⁵¹⁾

A general paralytic, in a state verging on dementia, never ceased counseling or reproaching himself. "You are aware, Mr. G., that you have been placed in this establishment. Moreover, you are well off here. We warn you that we despair utterly of you,

etc., etc." As the general paralysis progressed, the words became less intelligible. Nevertheless, even in the midst of delirium, this conversation of the patient with himself was observed. Sometimes he made demands and gave the responses. When arrived at nearly absolute dementia, he presented the same phenomenon. He shrieked and was greatly agitated, then suddenly became calm and said in a low tone, with a significant gesture: Will you shut up? Talk more quietly. And he would answer: Yes, I'll talk more quietly. Another day we found him busily occupied in going through the motions of tasting and expectorating. We said: You are enjoying yourself, Mr. G.? He answered: Which? and then became incoherent. This question and response, reproduced *verbatim*, may seem due to chance, but it accords so well with the duality long observed that we have thought it should not be passed over in silence.⁽⁶²⁾

In the following case the dissolution of personality is presented under another aspect: The individual is no longer conscious of a part of himself which, to him, has become foreign or inimical. Previously, in speaking of hallucinations, we have seen the patient gradually corporealize them and finally cast off from himself the work of his imagination. In the demented the affair is more serious. Here we have acts or states perfectly normal to the healthy subject, lacking in the morbid or imaginary characteristics of hallucinations, yet the patient perceives only exteriorly and is not conscious of being their cause. How shall this singular situation be explained without admitting a profound alteration in the *cenesthesia*; without supposing that certain parts of the body are no longer represented, felt in this brain in

ruins? Visual perception persists (experience proves this), yet the patient sees his own movements as exterior, antagonistic phenomena, which he attributes neither to himself nor to others; which he passively verifies without further investigation, for, his internal sensations being abolished and his reasoning faculty impotent, he has no remedy against this incoördination.

In another case of general paralysis in the period of dementia, when speech was almost unintelligible and the concept of the external world extremely vague, we note: One day he was occupied in shelling peas. Although naturally awkward and also right-handed, he used only the left hand in his work. The right hand would advance as if to take its part in the work, but would scarcely get into position before the other fell upon it, pinched it vigorously. During this episode the face of the patient expressed anger, and he repeated authoritatively: No! no! His body became agitated by sudden tremors and everything indicated the violent struggle going on within. Another time it was necessary to bind him in a chair. His countenance fell, and seizing the right hand with his left, he cried: There, it's your fault. It is because of you that I am tied down, and began to strike it vigorously.

These two are not isolated facts. It had been noted several times that when the right hand roused from its habitual inertia, the patient stopped it with his left. He would grow angry, excited, striking it as violently as his strength would permit. Sensitivity, though dulled, was conserved as well in the upper right limb as elsewhere."⁽⁵³⁾

Certain dementes attribute to other patients the

noise made by themselves and complain much of their cries. Finally, we shall cite a case, observed by Hunter, of a senile whose faculties were greatly enfeebled. He incessantly transferred the incidents of his early life to the present. "Although he was able to act correctly in accordance with certain impressions, to attribute them to the parts of the body affected, he had the habit of constantly assigning his own sensations to the persons about him. Thus, he would say to his nurse or the assistants that he was sure *they* were hungry or thirsty. But, if he were given to eat or drink, it was seen from his avidity that this absurd idea had been suggested to him by the feeling of hunger or thirst, and that the word "they" related to himself and not to the others. He was subject to violent attacks of cough. Following each paroxysm, he would take up the thread of his conversation after having expressed in appropriate and sympathetic terms how much he was affected by the sad state of his friend. "I am sorry," he would say, "to see you suffering from such a troublesome and fatiguing cough."(")

Little by little these cases progress to increasing incoördination, to complete incoherence. They approximate the congenital imbecility that never was able to attain the average plane of human personality. In the coördination of multiple and ascendent degree that constitutes normal man, there has been for the idiot an arrest of development. The evolution has not passed beyond the first stages. It has made sure the physical life and, with this, some elementary psychic manifestations. The conditions of an ulterior development have bankrupted. It is this fact of coördination as basis of personality, which, in conclusion, we shall examine a little more closely.

2.

Before this, however, let us endeavor a rapid classification of the disorders of personality, of which we have just given so many instances so dissimilar, that at first it seems impossible to reduce them to a few fundamental types.

Although in the normal state, the body-sense changes in various ways during the course of life, particularly the evolution which conducts us from birth to death, the change is ordinarily so slow and continuous that the assimilation of new sensations is gradually effected, the transformation not perceived, and thus what we term "identity" is realized, *i. e.*, apparent permanence in the midst of incessant variation. Soon, however, grave illnesses or profound changes (puberty, menopause) inject somewhat of indecision; betwixt the new state and the old, fusion is not immediate, and, as has been said: "at first these new sensations present themselves before my old ego as a strange *you* which excites surprise." But, if the general body-sense be suddenly modified, if there be a brusque and abundant afflux of unusual states, then the fundamental element of the ego is completely transformed; the individual separates from his former personality and appears as another. Most often there is a period of distress, of uncertainty, and the rupture is not instantaneously made. When this morbid state becomes fixed, then, in our opinion, three principal types develop in diseases of the personality:

I. The general body-sense is completely altered. The new state serves as base for a new psychic life (new manner of sensing, of perceiving, of thinking,

whence results a new memory). There remains of the old ego only the fully organized processes (gait, speech, manual dexterity, etc.), purely automatic, almost inconscient, like slaves ready to serve any master. Yet we must note that in reality the type presents exceptions. Either a portion of the automatic acquisition does not enter into the new ego, or now and then some vestiges of the old personality revive and project into the new ego a transitory indecision. Taking things in bulk and neglecting the small deviations, we may say that we have here an *alienation* of the personality, the old personality becomes for the new, *aliena*, foreign, so that the individual ignores his former life, and when it is recalled to him, regards it objectively, as separate from him. An excellent illustration is found in the woman at the Salpetriere, who since the age of 48 designated herself only by the term: "the person of myself." She gave some information, fairly exact, as to her former personality, but attributed the facts to another individual. "The person of myself does not know the one born in 1779" (her former personality).⁽⁵⁵⁾ The case of Père Lambert also belongs to this type. Hack Tuke cites the case of a patient, who for several years was at the Bedlam asylum; he had lost his ego, *i. e.*, the one familiar to him, and was in the habit of searching for himself under the bed.⁽⁵⁶⁾

II. The second type has as fundamental characteristic the alternation of two personalities, and it is especially to this type that the current epithet of "double conscience" should be applied. We have indicated that, between the first type and this, transitional forms are found, but at this time only that

which is clear and well-defined concerns us. The physical cause of this alternation is obscure, we may say, unknown. At the epoch when the second personality appears, the case does not differ from the first type; the differentiation begins with the reappearance of the original personality. It is difficult to avoid the hypothesis that in these subjects, commonly hysteric, *i. e.*, pre-eminently unstable, amongst the secondary variations there are in the physical life two distinct tendencies, each of which serves as basis for a psychic organization. The hypothesis will be more readily yielded to if we note that the alternation extends to the character, to that which is deepest in personality and which expresses most intimately the individual constitution (cases of Azam, Dufay, Camuset).

Again, we have divers forms of this alternating type. Sometimes the two personalities ignore each other; sometimes one embraces the entire life, the other being but partial (Azam's case). Finally, in the most instructive case, since it has lasted, to date, for 28 years, we behold the second personality constantly encroaching upon the first, which, much greater at the beginning, has gradually become less, so that an epoch is foreshadowed when it will disappear completely, and the second alone will remain. It would seem then that this state of alternation, when prolonged, has a fatal tendency to reduce itself to the first type, occupying then an intermediate position between the normal state and complete alienation of personality.

III. The third type is more superficial. I shall call it the "substitution of personality." I class in this type the common-enough case where the individual

merely believes that he has become another person (the man who calls himself a woman, the carpenter who believes himself king, etc.). Certain hypnotic states which we have mentioned may serve as models for the entire class. The alternation is rather psychic (in the strict sense of the word) than organic. Not that I suppose for an instant that it is born and lives without material conditions. I wish only to say that it is not caused and sustained, as in the preceding two groups, by a profound modification of the body-sense, trailing after it a complete transformation of the personality. It comes from the brain, not from the inner recesses of the organism; it is a local rather than a general disorder—the hypertrophy of a fixed idea which renders impossible the necessary coördinations of normal psychic life. Thus, while in the alienation and alternation of personality everything consents, after its manner, presenting the unity and inner logic of the organic components, here it is not rare that the one who calls himself king will admit that he was artisan, and the pretended millionaire will recognize that he used to earn two francs per day. Even aside from the cases where the incoördination is palpable, one sees that the fixed idea is a morbid excrescence, that does not at all imply a total transformation of the individual.

The classification, proceeding from the gravest to the least serious forms, does not pretend to exactness. It serves only to somewhat order the facts, to demonstrate how dissimilar they are, and to emphasize once again that personality has its roots in the organism and is varied or metamorphosed with it.

CONCLUSION.

1.

It is an inevitable consequence of the doctrine of evolution that the higher forms of individuality grow by aggregation and coalescence from the lower. Hence, in man, individuality in its highest degree is the accumulation and condensation in the cerebral cortex of elementary consciences originally autonomic and diffused.

The various types of psychic individuality in the animal scale, from the highest to the lowest, cannot be described and fixed by other than a psycho-zoölogist, and that only after many gropings and conjectures. Therefore it concerns us here only to note certain forms, solely in view of the chief aim of this work, which is, to demonstrate that progress toward the higher type of individuality is embodied in an increasing complexity and coördination.

Nothing is clearer than this term "individual" when applied to a man, a vertebrate, even an insect. Nothing is obscurer than the same term as we descend the animal scale. On this point all zoölogists are agreed.⁽⁶⁷⁾ Etymologically, the individual (*individuus*) is that which does not divide. According to this, the individual, in the strict sense of the word, must be sought for very low in the scale. Whilst nothing limits the dimensions of inorganic bodies (crystals), every protoplasmic mass that has attained a few thousandths of a millimeter at the most divides spontaneously into two or more distinct masses equivalent to the mass from which they are derived and which reproduces itself in them.

Protoplasm, then, does not exist save in the individual state, having a limited form, and this is why all living beings are necessarily composed of cells.⁽⁸⁸⁾ Life has not been able to attain notable growth save by the undefined repetition of the same fundamental theme, by the aggregation of an infinite number of these minute elements, true types of individuality.

The living and homogeneous matter constituting these elementary and primordial individualities extends itself, is heaped upon itself, thrusts out minute processes, changes its position, gets in front of substances suited to its nourishment, englobes them, decomposes them, and assimilates their debris. In regard to this subject, the term "rudiments of conscience" has been used—obscure volitions developed by the action of exterior stimulations and vague needs. The term may be employed for want of a better, but, on the condition of not forgetting that it has no precise significance. In a homogeneous mass with the least trace of differentiation, where the essential vital properties (nutrition, generation) are in a diffuse, indistinct state, the sole and very humble representative of psychic activity is that irritability common to all living things, which, later in the course of evolution, will become general sensitivity and the rest. Can this be called a conscience?

The first step toward a higher individuality consists in an association of individuals almost completely independent of one another. "The enforced neighborliness, the continuity of tissues, the unity, almost constant, of the digestive apparatus establish, nevertheless, a certain number of relations amongst them, so that each individual cannot remain absolutely estranged from what goes on with

his nearest associates; such is the case with the sponges, colonies of hydra, polyps, the bryozoares and some colonies of ascidiæ.⁽⁵⁹⁾ But this, properly speaking, is only a juxtaposition, a bunching together of a mass of minute contiguous and homogeneous consciences having no other community amongst them than that given by the limitations of their aggregate in space.

The birth of a colonial individuality and conscience marked a long step toward coördination. Formed of elementary individuals, the colony tends to transform itself into an individual of higher order in whom a division of labor is encountered. In the colonies of hydractiniæ, we encounter nourishment-bearing individuals, individuals for reproduction, others gifted with sex (males, females), others that palpate or seize the prey—seven in all. In the species of siphonophoriæ, in the agalm whose entire organism is over a meter in diameter, and in the neighboring types the faculty of locomotion has been completely centralized. The component individuals seem independent as long as the animal allows the common axis to float free; but, if a danger present or if the animal wish to execute some complex movement, the axis contracts and drags all the polyps with it. The physalia can accelerate or slow its progress, emerge or plunge at will, ascend, descend, go straight forwards or sideways; it can make all its individual organs concur in these complex acts. A wandering life, as Perrier remarks, favors the development of individuality. "Necessarily, there results from it a greater dependence of all the individuals; closer bonds are established between them; impressions at any point of the totality must necessarily be trans-

mitted to the locomotive organs, whose movements must be coördinated to avoid disorder. Thus is born a sort of colonial conscience and, because of this, the colony tends to form a new unity, to form that which we call an individual."⁽⁶⁰⁾ With other colonies, the common conscience (egoscience) is formed in a different manner. In the botryeæ there is a common orifice, the cloacus, about which are ranged all the individuals. Each of them sends toward the cloacus a thin, tongue-like process provided with a neural ray whereby communication may be permanently established among all the members of the same group. But, because a colony acquires the notion of its existence as a colony, it does not necessarily follow that each component individual loses his particulate conscience. Each, on the contrary, continues at first to comport himself as if single. In certain starfish, each ablated arm continues to climb, to follow a determinate route or to turn from it, according to circumstances, to move when irritated, to give witness, in a word, of a veritable conscience. The conscience of the ablated ray is no less subordinate to the conscience of the star, as is proved by the harmony of movement in the parts when the animal moves.⁽⁶¹⁾

For man, in whom centralization is pushed to so high a degree, it is somewhat difficult to represent with any exactness this psychic mode of existence, where there coexist partial individualities and a collective individuality. Strictly speaking, one might trace some analogy in certain morbid states. One might also say that the human individual has conscience of himself both as a person and as a member of the social body; but I do not wish to insist upon

these contestable approximations. Taking the question objectively and by its exterior, which alone is accessible to us, we see that this *colonial conscience*, however intermittent or feebly coördinated it may be at the beginning, marks a capital moment in evolution. It is the embryo of higher individuality, of the personality. It will gradually assume first rank, confiscating to its profit all the particulate individualities. In the political sphere an analogous evolution is found in strongly centralized governments. The central power, at first very feeble, scarcely recognized, often inferior to its subordinates, fortifies itself at their expense and slowly minimizes by absorbing them.

The development of the nervous system, the finest illustration of coördination, is the visible sign of progress toward a more complex and harmonious individuality. But this centralization is not established offhand. In the annelidiæ, the cerebroid ganglia sending nerves to the organs of sense appear to fulfil the same function as the brain in vertebrates. At any rate, there is far from complete centralization. The psychologic independence of the divers rings is very evident. "The conscience, although more distinct in the brain, tends to enfeeblement as the number of rings increases. Certain euniceæ, possibly attaining a length of one and a half meters, will bite the posterior portion of the body without apparently feeling it. It is doubtless to this diminution of conscience that we must attribute the facility with which annelidiæ, held in captivity under bad conditions, mutilate themselves." In linear colonies, the individual in front, obliged to take the initiative for all, to advance or retreat, to modify the gait of

the colony trailing behind, becomes a *head*, but this term is used only approximately by zoölogists, and we must guard against believing that it corresponds exactly to that which is called *head* in an insect or any other articulate. The individuality that it represents is so ill-defined, that we see in certain sexual annelidiæ composed of some forty rings the head of a sexually-gifted individual form at the third ring, develop tentacles and antennæ, and then detach itself from the primitive individual to live its own pleasure.⁽⁶²⁾

Details of all this may be found in special works, and as for the higher animals it is waste time to insist upon it; the individuality, in the current sense of the term, is already constituted, and the brain, more and more preponderant, represents it. Yet this excursion into the zoölogic field will not be in vain if we have succeeded in making understood that this so frequently mentioned coördination is not a simple intellectual contrivance, but, on the contrary, is an objective fact, visible and tangible, and that, as Espinas says, the psychic and the physical individuality are parallel, and conscience tends to unity or to dispersion with the organism. However, this term, conscience, or psychic individuality, is replete with pitfalls, which we shall not try to conceal. If psychic individuality is, as we affirm, only the subjective expression of the organism, then as we depart from the human type we descend into ever-increasing obscurity. Conscience is a function which may be compared to that of generation, since they each express the entire individual. Let us accord to the most elementary organisms a conscience, diffuse like all their properties, generation in particular. We see

the function of generation, as the animal rises in plane, localize itself, occupy one part of the organism, which, after numberless perfectings, becomes for this function, and for this alone, the representative of the whole organism. The psychic function pursues an analogous course. In its highest degree it is distinctly localized; it has taken to itself a part of the organism which, for this function and for it alone, becomes the representative of the whole organism. By a long series of successive delegations, the brain of the higher animals has succeeded in concentrating in itself the major part of the psychic activity of the colony; little by little, its surrogateship was extended ere the complete abdication of its associates was gained.⁽⁶³⁾ But, in taking haphazard an animal species, how shall we know exactly the degree of psychic delegation attained? Physiologists have made many experiments upon the spinal cord, *e. g.*, in frogs; is the psychic value of such experimentation relatively the same for man? It is doubtful.

2.

Let us return to man, and study first his purely physical personality. Eliminate, provisionally, all states of conscience (restoring them later), that we may consider only the material bases of his personality.

I. It would be useless to recall lengthily that all the organs of the so-called vegetative life: heart, blood-vessels, lungs, intestinal tract, liver, kidneys, etc., unlike as they appear, absorbed as each seems to be in its own work, are bound together in a close solidarity. The centripetal and centrifugal nerves of the great sympathetic and of the cerebro-spinal sys-

tem (the differentiation betwixt the two tends day by day toward the vanishing point) are with their ganglia, the innumerable agents of this coördination. Is their activity reducible to the simple molecular disturbance which constitutes the nervous influx, or, has it also a psychic, conscient effect? In morbid cases there is no doubt; it is *felt*. In the normal state, it rouses only that vague consciousness of life of which we have so often spoken. But vague or otherwise, it matters not. We affirm even, that these nervous actions which represent the totality of the organic life are the fundamental facts of personality, and that their value as such, is, so to speak, in the inverse ratio of their psychologic intensity. They do much better than merely rouse divers states of conscience, unstable and superficial; they mould the nervous centers, give them a distinctive tone, a habitude. Imagine, for a moment, the prodigious power of these actions (however feeble they may be supposed), transmitted incessantly with neither rest nor remission, repeating always the same theme with some variations. Why should they not have as result the formation of organic states, *i. e.*, stable by definition, which are the anatomic and physiologic representatives of the inner life? Evidently everything is not derived from the viscera alone, for the nervous centers also have their distinctive constitution (innate or inherited) by virtue of which they react; they are not alone recipients but excitants, and it is only by an inadmissible fiction that they are separated from the organs which they represent and with which they form a unit; betwixt organs and nerves there is a reciprocity of action.

Where end, finally, all these neural activities, the resumé of organic life? No one knows. Ferrier supposes that the occipital lobes are in special relation with the visceral sensitivity and constitute the anatomic substratum of their sensations. Let us admit this as purely hypothetic, and merely to fix our ideas. It would result therefrom that the visceral life would here attain its ultimate representation; that it would be inscribed here in a language unknown to us, but which, by these agencies, or (to carry on the metaphor) by the disposition of words and phrases, expresses the inner individuality, and it alone, to the exclusion of every other individuality. Besides, whether this anatomic representation exists here or elsewhere, whether it be localized or disseminated, does not alter our conclusion, provided it exists.

I have no regret for the reiteration, for, this coördination of the innumerable nervous actions of organic life is the basis of the physical and the psychic personality, since all other coördinations rest upon and are added to it, since it is the inner man, the material form of his subjectivity, the end-reason of his manner of sensing and of acting, the source of his instincts, his sentiments, his passions, and, to use a medieval phrase, his "principle of individuation."

Let us pass from within outwards. The periphery of the body is a surface where the terminal plaques of nerves are unequally distributed. Infrequent or numerous, the neural filaments receive and transmit from divers points of the body impressions, *i. e.*, molecular disturbances, conjoin in the spinal cord, and ascend to the bulb and isthmus of the cephalon. Here is found a new augmentation, that of the cra-

nial nerves; and the transmission of sensory impressions is complete. Nor should we forget the centrifugal nerves which act similarly, but in the sense of an ever decreasing decentralization. To sum up: the spinal marrow, which is a mass of juxtaposed and superimposed ganglia; still more the medulla with its special centers (respiration, phonation, deglutition, etc.), at the same time that they are organs of transmission, represent also the reduction to unity of an infinity of nervous actions disseminated throughout the body.

At the point where we now are, the question becomes exceedingly obscure. The *mesencephalon* seems to possess a more complicate reflex function than the medulla, whose reflex function, in turn, is more complicate than that of the cord. The *corpora striata* form, supposedly, a centre where habitual or automatic movements are organized; the optic *thalamus* is presumably the point where sensory impressions are assembled for reflection into movements. Whatever the truth of the matter, we know that the internal capsule, a bundle of white fibers attached to the cerebral peduncles, traverses the opo-striate bodies, passing between the *thalamus* and the lenticular nucleus and raying out in Reil's *ansa*. It is a cross-roads where all the sensory and motor fibers pass which come from or go to the opposite side of the body. The anterior portion contains only motor fibers; the posterior all of the sensory fibers, a certain number of motors, and all the fibers from the organs of sense. The sensory bundle, when complete, divides; one portion rises to the fronto-parietal convolution; the other curves backwards to the occipital lobe, and the motor part is distributed to the gray matter of the motor zones.

These details, fatiguing as they may be to the reader in spite of their brevity, show the intimate solidarity established amongst all parts of the body and the cerebral hemispheres. Here the subject of localization, though imperfect, permits somewhat of precision; there is a motor zone (ascending frontal, ascending parietal, paracentral lobule, base of the frontal convolution) where the movements of the different parts of the body appear represented; a sensory zone, much less sharply defined (occipital lobes(?), tempero-parietal region); as regards the frontal lobes, nothing precise. Note, in passing, the recent theory of Hughlings Jackson where "the frontal lobes represent, in relation to the other centers, the more complex combinations and coördinations, being thus a representation of representations."(⁶¹)

Let us disregard the discussions, past and present, concerning the physiologic and psychologic role of these centers, voluminous in quantity. Taking the question in mass, we may say that the cortex represents all the forms of nervous activity: visceral, muscular, tactile, visual, auditive, olfactive, gustatory, motor, sensory. This representation is not direct; an impression does not pass from periphery to brain like a telegram from one office to another. In an instance where the cord was reduced to the size of a quill and the gray substance infinitely diminished, the patient (Charcot) felt. But, to sum up, whether indirect or doubly indirect, this representation is, or may be a representation *in toto*. Betwixt the equivalents of the nervous actions disseminated throughout the body, there exist innumerable connections (commissures between hemispheres, between the various centers in each hemisphere); some con-

genital, others established by experience, of all possible degrees from the very stable to the extremely unstable. The physical personality, or, more exactly, its final representation, appears then, not as a central point whence all radiates and where all ends (the pineal gland of Descartes), but as a prodigiously complicate, labyrinthine conglomeration, wherein histology, anatomy and physiology continually do lose their way.

Even in so rough a sketch, we may perceive that the terms, *consensus*, *coördination* are not a simple *flatus vocis*, an abstraction, but the expression of the nature of things.

II. Let us again take up the psychic element, until now disregarded, and see what happens. Recall, that for us conscience (egoscience) is not an entity but a collection of states, of which each is a phenomenon of particulate kind allied to certain conditions of cerebral activity, existing when these exist, lacking as they are lacking, disappearing when they disappear. It results from this that, in any human being, the sum of the states of conscience is very much less than the sum of nervous actions (reflexes of all kinds, from the simplest to the most complex). To be exact: during a period of five minutes there is produced in us a train of sensations, sentiments, images, ideas, acts. Science is able to determine their number with sufficient exactness. During the same period in the same individual there will be produced a much greater number of nervous actions. The conscient personality then, is not a representation of all that happens in the nervous centers; it is only an extract or reduction. This is the inevitable consequence of our mental nature; our states of con-

science are ordered in time, not in space; they follow one dimension, not several. By fusion and integration of simple states, very complex states are formed, which enter the series as though they were simple; they may even coexist, in some measure, during a certain time; but, definitely, the circle of conscience, the *Umfang des Bewusstseins*, particularly of the perceiving conscience, remains always extremely limited. It is, therefore, impossible to consider the conscient personality in relation to objective or cerebral personality as a pattern which may be exactly superimposed upon the design; it resembles rather a topographic map in its relation to the country represented.

Why do certain nervous centers become conscient, and which? To answer this query would be to solve the problem of the conditions of conscience. We have already said that, in great measure, these are unknown. There has been much discussion as to the role which the five layers of cortical cells play in this genesis. As the authors themselves admit, it is all pure hypothesis. Let us go on: there is no profit to psychology in basing itself upon an unsound physiology. We verify that the always unstable states of conscience rouse themselves and supplant themselves. It is the effect of a transmission of force and of a conflict of forces which, for us, takes place not between states of conscience but between the nervous elements which sustain and engender them. These associations and antagonisms, well-studied nowadays, do not pertain to our subject-matter. We have to penetrate farther, to the conditions of their organic unity. States of conscience are not, in fact, will-o'-the-wisps successively flaming up and dying

away; there is something which unites them, and which is subjective expression of their objective co-ordination. Although we have considered this point, it is so important that we do not fear returning to it, viewing it in another aspect.

Let us note that we are not discussing just now the reflecting personality, but that spontaneous, natural sense of ourselves found in every healthy individual. Each of my states of conscience has the duplex character of being such and such, and also of being *mine*; it is not a pain but *my* pain; not the vision of a tree but *my* vision of a tree. Each bears its mark whereby it appears *mine* alone, without which it would appear foreign to me, a phenomenon we have noted in some morbid cases. The *insignum* in common is the sign of a common origin, and whence can it come other than from the organism? Let us imagine that one might suppress in a human being the five special senses, and with them their psychologic contributions (perceptions, images, ideas, associations of ideas *inter se* and of emotions with ideas). This suppression executed, there still remains the inner organic life, having its own sensitivity as an expression of the state and functioning of each organ, of their general and local variations, of the elevation or depression of the vital *tonus*. The state of a man sound asleep approximates sensibly our supposition. Now, put the contrary hypothesis to the proof; we find it absurd, contradictory. We cannot rationally picture to ourselves the special senses and the psychic life they support, as isolated from the general sensitivity and suspended in space. Each sensory apparatus (in fact) is not an abstraction; there is no visual or auditive apparatus

in general, as described in physiologic treatises, but a concrete, individual apparatus, never reproduced twice identically (except, perhaps, in some twins) in individuals of the same species. Nor is this all. Besides its own constitution in each individual whereby it directly and necessarily hall-marks all its products, each sensory apparatus is dependent every instant and in all forms upon the organic life: circulation, digestion, respiration, secretion, and the rest. The diverse expressions of individuality are added to every perception, emotion, idea; make but one with them, even as in music the harmonics blend with the basal tone. This personal, inclusive character of our states of conscience is not, as some authors say, the result of a more or less explicit judgment, which, as the states are produced, affirms them as *mine*. The personal hall-mark is not *stamped on* but *cast in*; it forms an integral part of the event and results from its physiologic conditions. It is not by studying the states of conscience alone, that we discover its origin, for it cannot simultaneously be effect and cause, subjective state and nervous action.

Pathologic facts confirm this conclusion. We have seen the egoscience elevated or depressed according to the state of the organism, and some patients declare that their "sensations are altered," *i. e.*, the basal tone no longer has the same harmonics. We have, finally, seen states of conscience gradually lose their personal character, become objective and foreign to the individual. Are these facts explicable by any other theory?

Stuart Mill, in a frequently cited passage, demands where is the bond, the inexplicable law, the "organic union" attaching one state of conscience to another,

the common enduring element; and finds definitely that "we can affirm nothing of the mind other than states of conscience." Doubtless so, if we hold to a pure ideology. But, a group of effects is not a cause, and however minutely studied, our work will be incomplete if we do not descend deeper into that obscure region where, as Taine says "innumerable currents swirl in unceasing circulation without our conscient knowledge." The organic bond enounced by Stuart Mill is, so to speak, by definition, within the organism.

It is the organism and the brain, its supreme representant, which is the real personality, holding within it the residue of all that we have been and the possibilities of all that we shall be. The whole individual character is inscribed there with its active and passive aptitudes, its sympathies and antipathies, its talent or its folly, its virtues and vices, its torpor and its activity. That which rises to the plane of conscience is small in comparison with that which remains latent but active. The conscient personality is never more than a small part of the physical personality.

Unity of the ego, then, is not the unitary entity of the spiritists, diffused in multiple phenomena, but the coördination of a certain number of states unceasingly renascent and based solely upon the vague body-sense. This unity does not progress from above downwards but from below upwards; it is not an initial but a terminal point.

Does this unity exist in perfection? In an exact mathematical sense, evidently not. In a relative sense it is encountered rarely, passingly. In a good marksman who aims, in a skilful surgeon who oper-

ates, everything converges physically and mentally. But, note the result: in these conditions the sentiment of the real personality vanishes, the conscient individual being reduced to one idea, so that the perfect unity of conscience and the sentiment of personality are mutually exclusive. We return by another route to the same conclusion: the ego is a coördination. It oscillates between two extreme points at either of which—absolute unity or absolute incoördination—it ceases to exist. All the intermediate degrees are found, in fact, without demarcation betwixt the healthy and the morbid; one impinges on the other.

The unity of the ego in the psychologic sense is, therefore, the cohesion during a certain period of a certain number of distinct states of conscience, accompanied by others less distinct and by a mass of physiologic states which, though not accompanied by conscience, as are their congeners, are as active as they and more so. Unity means coördination. The last word of all this is, that the consensus of conscience being subordinated to the consensus of the organism, the problem of the unity of the ego is, in its ultimate analysis, a biologic problem. Let biology explain, if it can, the genesis of organisms and the solidarity of their parts, and the psychologic interpretation cannot help but follow. We have endeavored to demonstrate it in detail by the exposition and discussion of morbid cases, and here our task ends.

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3 Numerous examples will be found in the works of authors treating of epilepsy. In regard to "interrupted phrases," consult in particular Forbes Winslow: *On Obscure Diseases*, etc., p. 322 et seq; —Maudsley, *Pathology of the Mind*; Puel, *De la catalepsie* (Mém. de l'Acad. de méd., 1856, p. 475).

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5. Note, in passing, that one great metaphysician, Spinoza, clearly supports the same thesis though in different terms: "The object of the idea which constitutes the human soul is the body . . . and nothing else."—"The idea constituting the formal essence of the human soul is not simple but a composite of several ideas." (*Ethics*, part II., propositions, 13 and 15; compare, also, the *Scholia* to proposition 17.)

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61. *Ibid.*, pp. 772-773.
62. *Ibid.*, pp. 448, 491, 501, 452.
63. Espinas, *Les sociétés animales*, p. 520.
64. *Lectures on the Evolution and Dissolution of the Nervous System*, 1884.

